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Integrative Principals' Leadership Behaviour Approach to Improve Student Academic Outcomes in Ethiopian Secondary Schools

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Abstract. It is clear from the literature that there is no consensus on the most effective type of leadership behavior which promotes one of the main objectives of education, namely student achievement. This current study was initiated due to the prevalence of low student achievement as well as the observed controversies regarding effective types of leadership behaviors in secondary schools in the Gedeo Zone of Ethiopia. The aim of the study was to examine the effect of secondary school principals' leadership behaviors on student outcomes in the zone and consequently to identify effective types of leadership constructs that could enhance learners' success. An explanatory sequential mixed-design approach was used with a sample of six schools which were chosen by using a maximum variation strategy. Out of these six sampled schools, eighteen (18) participants, comprising of six (6) principals, four (4) district supervisors, two (2) zone education experts and six (6) PTSA chairmen were chosen for the qualitative phase. These participants were selected purposively as they have a better understanding, by virtue of their position regarding the effect of principals' leadership behavior on student achievement. A close-ended questionnaire was used to collect quantitative data, while interviews and document analysis were used as research instruments in the qualitative phase. The findings of this study indicate that effective practicing of a combination of instructional and transformational leadership behaviors, in integrative ways, enhances student outcomes.

Keywords: instructional leadership; transformational leadership; school culture; student achievement; Ethiopian schools

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1. Introduction

The growing complexity, responsibility, and accountability of leadership as well as a rapidly changing school environment, call for effective principals who can win the trust and support of all stakeholders to commit themselves to realizing better achievement for all students (Aleme, 2021; Muchiri, 2022; Onorato, 2013). During the last few decades education systems globally have entered a major transformational change due to the emerging trends of globalization; competition; decentralization; knowledge-driven economy; expansion of information technology; consumer driven education; and social constructivist views of teaching and learning (UNESCO, 2022). Such global trends require competent school principals who can exert positive influence on the thought and actions of stakeholders by exhibiting appropriate types of leadership behaviors to enable them to work willingly and with commitment to maximize student outcomes (Bryk et al., 2010; Chrispeels et al., 2008; Muchiri, 2022; Sengeh & Winthrop, 2022). For school principals to be effective, they must deal and work integrally with various groups of people with different interests. In addition, they need to be skillful in their leadership behaviors and be able to adopt the best practice (cf. Aleme, 2021; Botha, 2012; Dereje, 2015; Girus 2017; Gyasi, Xi & Owusu-Ampomah, 2016).

According to Bush (2008), a principal's leadership qualities is among one of the few core factors that determine the success or failure of the school. Strengthening this view, Leithwood et al. (2004) stated almost two decades ago that the total effect of leadership, on enhancing student outcomes, can have an improvement percentage as high as 25 percent. Likewise, Louis et al. (2010) as well as Simkin (2011) and Botha (2012), have ranked school leadership as the second most important factor in realizing better student achievement. In contrast to a strong agreement regarding the determinant role of principals, there is less consensus and more contradictions with respect to the most effective type of leadership behaviors, which enhances better student achievement (cf. Kene et al., 2021; Pinto, 2014; Robinson et al., 2008; Ross & Gray, 2006; UNESCO, 2022). These inconsistencies necessitate further research in this area.

Several studies (cf. Al-Safran et al., 2020; Barker, 2007; Mthombeni, 2006; Simkin, 2011, Tedla & Redda, 2021) have been done to identify the most effective types of leadership behaviors that better enhance student achievement. In these studies, various types of leadership models were cited as being more effective. For instance, some researchers such as Simkin (2011) and Preston (2012), suggests that the instructional model is the most effective model for improving student outcomes, while other authors such as Barker (2007) and Peariso (2011) suggest that the transformational model is the preferred model. On the other hand, authors such as Sadker (2005) and Louis et al. (2010) propose the distributive leadership model as the preferred model, while authors such as Murphy et al. (2006), Rhodes and Brundrett (2010) as well as Hallinger (2011) recommend the learner centered leadership model as the preferred model.

In contrast, Heck and Hallinger (2005), Hoy and Miskel (2008) and Louis et al. (2010), proposed positive school culture as the most effective variable to improve

student outcomes. More recently, Pinto (2014) and Townsend (2015) suggested that the hybrid leadership model is the best one. From these findings, it is easy to understand that no single research finding can get full acceptance as the best model, since none of them are free of criticism, either in terms of incomprehensiveness, or methodological weakness, or due to its inconclusiveness (cf. Al-Safran et al., 2020; Hailegebreal & Temesgen, 2020; Marzano et al., 2005; Miller & Rowan, 2006; Muchiri, 2022).

In furthering the existing disagreement between various views, the ‘contest’ observed between the instructional and transformational leadership models, as preferred models, are presented here as evidence. Instructional leadership is proposed as the most effective leadership model by many researchers (cf. Aleme, 2021; Cayetano, 2011; Hallinger, 2005; Simkin, 2011; Sirinides, 2009).

Robinson et al., (2008) state that principals, who typically exhibit strong instructional behaviors, achieve three to four times more in terms of student achievement than those principals who exhibit transformational behaviors. These authors specifically argue against the importance of transformational behaviors because the change of culture brought through this model could improve only social interaction among members, rather than academic performance of students.

Contrary to the findings reported above, some researchers (cf. Chrispeels et al., 2008; Leithwood & Jantzi, 2006; Peariso, 2011; Ross & Gray, 2006; Sengeh & Winthrop, 2022) have identified transformational leadership as the most effective model in enhancing student achievement. Ross and Gray (2006) have revealed that when transformational behavior is increased by one standard deviation, it enables the improvement of student achievement by almost one quarter of a percent. School principals who exhibit transformational type of leadership behaviors more often have higher teacher collective efficacy, greater teacher commitment, and better school-community partnerships which, in turn, results in higher student achievement (cf. Nguni et al., 2006; Ross & Gray, 2006; Sengeh & Winthrop, 2022). These authors criticized the instructional leadership model as a top-down, non-participatory and principal dominating model which encourages excessive control, and hence, impedes organizational learning and teacher discretion (cf. Aleme, 2021; Botha, 2012; Kene et al., 2021; Muchiri, 2022; Mulford, 2008).

The discussion so far seems to imply that scholars agree on the determinant roles of principals, while they fail to reach a consensus when it comes to choosing and implementing the most effective type of leadership behaviors that enhances student achievement.

The purpose of this study was to assess the effect of an integrative leadership model (ILM) which combines instructional and transformational behaviors on student achievement in the Gedeo Zone of Ethiopia. To achieve the above identified study’s aim, the following research question has been raised, namely: *What effect does an integrative leadership model, which combines instructional and transformational behaviors, have on student achievement in the Gedeo Zone of Ethiopia?* In relation to the above stated research question, we propose a positive hypothesis

to be tested in this study, namely H1: Principals who score high in practicing instructional and transformational components of an integrative leadership model are effective in realizing better student achievement.

2. Methods

2.1 Design

The Learning-Centered Leadership (LCL) is a set of strategies which influence the quality of learning and teaching in classrooms and encompasses components of both the instructional and transformational leadership models (Özdemir et al., 2021). With this in mind, we have used LCL as a theoretical framework for this study. The study employed a mixed-method approach which encompassed both qualitative and quantitative strands. The combination of both quantitative and qualitative data is reported to provide a far better understanding of the research problem, rather than using either type individually (Creswell, 2012). The quantitative data could yield a specific number which represents the findings of the study in statistically expressed scores, whereas the qualitative data offers different perspectives of the respondents regarding the effect of principals' integrative leadership behaviors on student achievement (Johnson & Christensen, 2014). Specifically, an explanatory sequential mixed method design was employed. In line with the notion of this design, the analyses were carried out in two separate phases and the result was triangulated to verify whether the finding of the two phases agreed or not.

2.2 Participants

Out of the 23 secondary schools in the zone, six (6) sample schools were selected purposively by using the maximal variation technique. The sample includes the three least achiever schools (Group-1) and the three best achiever schools (Group-2) in the zone based on the 10th grade standardized national exam results for two consecutive academic years, namely 2016/17 and 2018/19. The six schools were selected with the assumption that the variation in student achievement could occur mainly due to the difference in leadership behaviors/styles that school principals employed in their schools. Indeed, care has been taken to minimize interference of any other extraneous variables that influence student achievement. Only government schools were involved in the study since their context is almost similar in all other aspects.

Out of these six sampled schools, eighteen (18) participants, comprising of six (6) principals, four (4) district supervisors, two (2) zone education experts and six (6) PTSA chairmen were chosen for the qualitative phase. These participants were selected purposively as they have a better understanding, by virtue of their position regarding the effect of principals' leadership behavior on student achievement.

The Slovin formula ($n = \frac{N}{1 + N(e)^2}$) of Umar (2000) was used in the quantitative phase to determine the teacher sample size proportionally from the six (6) selected general secondary schools. In this formula, **n** is the sample size, **N** is the population size (total number of teachers in the six (6) sample schools), and **e** the level of precision (if 5 % is taken). Therefore, the sample size for this study

was, $n = \frac{251}{1+251(0.05)^2} \cong 154$, where $N = 251$ was the total number of teachers in the six (6) schools. Sample determination from each school was obtained using the proportional allocation rule for the schools; RLAS 23, $\frac{n_E}{N_E} = \frac{n}{N}$. In this formula $n_E =$ is the number of sample teachers from the school; and $N_E =$ is the population of all teachers in school.

Similarly, student respondents were also selected by applying the concept of the proportional stratified sampling method. Accordingly, the number of 10th grade students in the sample schools and samples chosen from each school, are proportional. The final sample of the quantitative phase was 141 teachers and 180 students drawn from 10th grade learners of the six (6) sample schools. These samples perfectly represent the proportions in the population.

2.3 Instruments

A close-ended questionnaire was used to collect quantitative data, while interviews and document analysis were used as research instruments in the qualitative phase. The quantitative data was analyzed statistically, by SPSS version 25, to obtain a general picture regarding the effects of principals' integrative leadership on student achievement. In the second phase, qualitative data was analyzed to get additional explanatory ideas.

3. Results

The effect of practicing an integrative leadership approach by principals of Group-1 (least achiever schools) and Group-2 (best achiever schools) regarding student academic achievement was analysed both quantitatively and qualitatively. The quantitative data was analysed with descriptive and inferential statistics. Such analyses enabled us to compare the performance of school principals in the two respective groups. The total number of questionnaires, dispatched to teachers in this phase, was 154 and that to students were 194. Out of these, 141 questionnaires from teachers and 180 questionnaires from students were properly completed and returned. This implies that 91.56 percent of teachers and 93.75 percent of students (which account 92.24 percent of the total respondents) returned usable questionnaires. In the proceeding analysis, the effective practicing of integrative leadership by the principals of the Group-1 and Group-2 schools were used as an independent variable, while student achievement in the 10th grade standardized national exam was used as a dependent variable.

The biographical characteristics of the respondents were analysed as it helps to understand the context under which the results were analysed. Accordingly, respondents' personal data were analysed in terms of their gender, age, qualifications, and work experience. Regarding the gender of participants, most teacher respondents (116 or 67%) and student respondents (117 or 65 %) are male. This indicates that the number of male and female teacher participants is disproportional in secondary schools of the zone. With respect to qualification, the vast majority (120 or 85.11%) of teachers are bachelor's degree holders, while only 14 (9.93%) of them have master's degrees. In addition, seven (7) (4.96%) of them are diploma holders. Similarly, the demographic data of interviewees in the qualitative phase revealed that all 18 (100%) participants are male. With respect

to their qualifications, out of the six principals, only two (30%) of them have master's degrees, while only one (25%) of the four district supervisors have a master's degrees.

In the following sections, the results with respect to the effect of principals' integrative leadership behavior (that encompasses both instructional and transformational behaviors) on student achievement which were obtained from descriptive and inferential data analysis during the quantitative phase, as well as the content analysis of data from the qualitative phase, are presented. The analysis of the instructional and transformational behavior, as component of ILM, will be discussed separately.

3.1 Analysis of principals' instructional leadership behavior as a component of the Integrative Leadership Model (ILM)

The instructional leadership component of the proposed ILM was adopted from Hallinger's (2011) model which comprises three dimensions, namely, defining the school mission; managing the instructional program; and promoting a positive school learning environment. Furthermore, the ten (10) functions that derived from these three dimensions, were used to examine the extent to which principals of the two groups are practicing the ten (10) functions appropriately in their leadership role. The results of the analysis, in performing their instructional leadership role, by school principals of the two groups, are presented in Table 1 below.

Table 1: Descriptive analysis of principals' instructional leadership practice

Dimensions	Instructional leadership behaviours	Performance Score of Principals			
		Score of Group-1		Score of Group-2	
		M	SD	M	SD
1. Defining mission	1.Framing the school's goals	2.64	.781	3.99	.841
	2.Communicating school goals	2.66	.732	3.89	.773
Mean score of dimension 1		2.65	1.12	3.94	1.14
2. Managing the instructional programme	3.Supervising & evaluating instruction	2.46	.771	4.08	.811
	4.Coordinating the curriculum	2.59	.800	3.73	.744
	5.Monitoring student progress	2.48	.695	3.98	.624
Mean score of dimension 2		2.51	1.3	3.93	1.27
3. Promoting positive learning climate	6.Protecting instructional time	2.85	.796	3.93	.758
	7.Maintaining high visibility	3.25	.816	3.91	.832
	8.Promoting professional development	2.44	.757	4.07	.887
	9.Providing incentive for teachers	2.94	.787	3.84	.791
	10.Providing incentive for learning	2.66	.654	3.84	.689
Mean score of dimension 3		2.84	1.71	3.92	1.78
Mean score of instructional leadership behaviour		2.67	2.43	3.93	2.46

Note: Group-1 represents of least achiever schools while Group-2 represents of best achiever schools

Regarding the first dimension of defining school mission, respondents showed that the performance of Group-1 principals were generally perceived as average (M = 2.64; SD= .781), while respondents of Group-2 principals revealed high performance (M=3.99; SD=0.841) regarding item 1 (Framing school's goals). This

means principals in the least achiever's category, were only partially successful in setting desirable ends. The result of item 2 (Communicating school goals) was also average for Group-1 ($M=2.66$, $SD=.732$), while the mean score of Group-2 ($M=3.89$, $SD=.773$) indicated a high achievement in terms of this item. The result of the first dimension implies that principals of Group-2 schools were effective in setting clear, aspiring, and feasible goals and in communicating the vision of the school to stakeholders. These principals were in a good position to secure collaboration with their major stakeholders to accomplish the goal and the vision they set.

Regarding the second dimension of managing the instructional program, participants were asked to verify whether the principal of their school exhibited an effective type of leadership behaviour or not. As the results of the analysis showed, the principals of Group-1 exhibited low performance ($M=2.46$; $SD=0.771$) in item 3 (Supervision and evaluation of instruction), whereas Group-2 principals performed at a higher level ($M=4.08$, $SD=.811$) in this item. This implies that Group-1 principals were ineffective in supporting and improving competencies of teachers, while the practice of Group-2 principals were more effective. Furthermore, the higher mean scores ($M=3.73$; $SD=.744$) of Group-2, for item 4 (Coordinating the curriculum) implies that principals of best achiever schools practiced appropriate types of leadership behaviours which helps to implement, evaluate, and improve the curriculum. Regarding item 5 (Monitoring of student progress), respondents of Group-1 indicated an average performance ($M=2.48$; $SD=.695$), while the mean scores ($M=3.93$; $SD=1.27$) for Group-2 principals ascertained a higher performance. This implies that principals of Group-1 schools utilized student achievement data to some extent for improvement purposes, whereas principals of Group-2 schools used this data as input to ensure the sustainability of student progress.

Regarding the third dimension, which deals with promoting a positive learning climate, respondents were asked to rate the degree to which the principal of their school exhibited appropriate leadership behaviours that enhance better results in preserving supportive school culture and the learning environment. The overall performance of Group-1 principals was average ($M=2.84$; $SD=1.71$), whereas the performance of Group-2 principals was high ($M=3.92$; $SD=1.78$). The analysis furthermore showed that principals of Group-1, performed four out of the five items in this dimension on an average level with a mean score ranging from $M=2.94$ to 3.25 with respect to the role of item 9 (Providing incentives for learning) and item 7 (Maintaining high visibility), respectively. Furthermore, item 8 of this dimension (Promoting of professional development) was performed at a low level ($M=2.44$; $SD=.757$) by principals of Group-1.

The performance of Group-1 for item 6 of this dimension (Protecting instructional time) was average ($M=2.85$; $SD=.796$). This means that some periods were wasted, or inefficiently used, due to the ineffectiveness of principals in this dimension. The higher performance ($M=3.93$; $SD=.758$) of Group-2, in this item implies better performance of Group-2 principals. This finding is in line with those of Alig-Mielcarek (2003) and Lyons (2010) where these authors claimed that successful school principals give precedence to saving instructional time from any form of

distractor, while they create an orderly, safe, and quite atmosphere which is conducive to academic achievement.

As the result of item 7 (Maintaining high visibility) shows, the mean score ($M=3.25$; $SD=.816$) of Group-1 indicated an average performance, whereas the performance of Group-2 was higher ($M=3.91$; $SD=.832$). This implies that principals of Group-2's visibility enables them to perceive more easily what is going on in their classrooms, therefore, motivating their staff and strengthening a positive school environment.

As depicted in item 8 (Promoting professional development) of Table 1 above, the responses from the principals from Group-1 were low with mean scores ($M=2.44$; $SD=.757$), while Group-2 principals' responses were much higher with mean scores of $M=4.07$ and $SD=.887$ respectively. With reference to item 9 (Providing teacher incentives), respondents from Group-1's mean scores were average ($M=2.94$; $SD=.787$) while Group-2's mean scores were, once again, higher ($M=3.84$; $SD=.791$). This implies that principals of Group-2 were better in motivating teachers, by providing incentives for their commitment as well as for the best overall result achieved than principals of Group-1. Similarly, for item 10 (Providing incentives for learning), the mean scores for Group-1 were average ($M=2.66$; $SD=.654$), while that of Group-2 principals were, once again, higher ($M=3.84$; $SD=.689$). This implies that in motivating students to learn, principals of Group-2 were strengthening desirable behaviour and augmenting their commitment more than principals of Group-1.

3.2 Analysis of principals' transformational leadership behavior as a component of the Integrative Leadership Model (ILM)

In this study, the transformational leadership behaviour approach, developed by Leithwood and Jantzi (2006), was adopted as a component of the proposed Integrative Leadership Model (ILM). This approach has three broad dimensions, or categories, that are further sub-divided into nine (9) distinguished items or functions. The first dimension is referred to as the Mission Centred Cluster, that comprises of two specific functions, which are presented in Table 2 below. The second dimension is called the Performance Centred Cluster that comprises of three sub-functions, as indicated in Table 2 below. The third category is known as the Culture Centred Cluster and has four functions which are listed in Table 2 below. The extent to which principals of the two groups practiced each function of transformational leadership effectively is indicated below.

Table 2: Descriptive analysis of principals' transformational leadership practice

Dimensions	Transformational leadership behaviours	Group-1 score		Group-2 score	
		M	SD	M	SD
Mission Centred	1. Developing shared vision for the school	2.88	.88	3.85	.786
	2. Building consensus on school goals & priorities	2.65	.921	3.81	.908
Mean score of dimension 2		2.77	1.27	3.86	.787
Performance Centred	3. Holding high performance expectations	2.60	.969	3.97	.792

	4. Providing individualized support	2.60	.886	3.81	.762
	5. Providing intellectual stimulation	2.47	.868	4.04	.926
Mean score of dimension 2		2.56	1.57	3.94	1.44
Culture Centred	6. Modelling organizational values	2.86	.919	3.98	.804
	7. Strengthening productive school culture	3.22	.789	3.86	.822
	8. Building collaborative cultures	2.94	.885	3.81	.778
	Creating structures that promote participation	3.02	1.70	4.02	.785
Mean score of dimension 3		3.02	1.70	3.94	1.56
Mean score of transformational behaviours per a group		2.78	1.51	3.91	1.05

As seen in Table 2 above, the overall performance in terms of dimension 1 (Mission Centred Cluster) of Group-1 principals was average ($M=2.77$; $SD=1.27$), while the performance level of Group-2 principals was high ($M=3.86$; $SD=.787$). The results ascertained an effectiveness of Group-2 principals, both in establishing an inspiring vision, as well as inspiring the stakeholders to cultivate this vision as a dream, to which they committed enthusiastically, in attaining it. From the results of the analysis of this dimension, it is possible to infer that more committed staff is available in the best achiever category (Group-2), mainly due to the appropriate transformational leadership abilities and skills exhibited by their school principals.

The overall performance, in terms of dimension 2 (Performance Centred Cluster) of Group-1 principals was, once again, average ($M=2.56$; $SD=1.57$), while the performance level of Group-2 principals was higher, once again ($M=3.94$; $SD=1.44$). This performance focused dimension, as a transformational ingredient of the proposed ILM, has three items, or sub-functions and the results of the descriptive analysis of these items are presented in the Table 2 above. With respect to item 3, (Holding high performance expectations), the mean scores for Group-1 were $M=2.60$ and $SD=.969$, respectively, while the scores of Group-2 was $M=3.97$ and $SD=.792$, respectively.

This revealed a more moderate performance of Group-1 principals and implied that principals of best achiever schools were more successful in cultivating the school community in enabling the best performance, by establishing high expectations. This implies that members were encouraged to scrutinize the existing assumptions, values, practices, and strategies, instead of simply pushing to accept everything as it is. Principals of Group-1 schools were ineffective in cultivating the commitment of stakeholders, by appealing to their sense of efficacy; eagerness to learn; and their ability of questioning the existing value system. We can infer that principals of Group-2 not only have better knowledge about member's strengths and weaknesses, but also perform better in supporting them to reach their potential.

For item 4, (Providing individual support), the performance of Group-1 was identified as moderate ($M=2.60$; $SD=.886$) while the performance of Group-2 principals was rated higher ($M=3.81$; $SD=.762$). This was also the case for item 5, (Providing intellectual stimulation), where the scores range from $M=2.47$ to $M=4.04$ and $SD=.868$ to $SD=.926$, respectively. For both these items, principals from Group-2 performed higher in their mean scores, as those of Group-1.

With respect to dimension 3, (The Culture Centred Cluster), of transformational leadership, the overall performance of Group-1 principals was average ($M=3.02$; $SD= 1.57$) while the performance of Group-2 principals was high ($M=3.94$; $SD=1.56$). Performances of principals in Group-1 rated average to all behaviours set under items 6 to 9, which could help to develop a positive school culture. Comparatively, the performances of principals of the Group-2 category recognized as high. This implies that principals of Group-2 were perceived as role models, going beyond their personal interest, building trust, sharing leadership and decision-making authority, and communicating important values and actions openly.

3.3 Analysis of an Integrated Leadership Model (ILM) with inferential statistics and hypothesis testing

The hypothesis, set in this study, is that the integrative leadership model is perceived as effective, as it can help principals to give adequate attention and to put emphasis on the teaching-learning aspect. The scores for each of the two (2) sample groups, in performing the two (2) leadership behaviours which form the components of the ILM, are presented in Table 3 below. The analysis was done via inferential statistics.

Table 3: Analysing integrative leadership model using inferential statistics

No	Components of ILM	Score	Analysing Integrative Leadership Model (ILM)							
			Group-1 score per school			Group-1 total score	Group-2 score per school			Group-2 total score
			RLAS-23	RLAS-22	RLAS-21		RBAS-3	RLAS-2	RLAS-1	
1	Score in instructional	M	2.55	2.68	2.76	2.67	3.83	3.89	4.04	3.93
		SD	2.50	2.50	2.27	2.43	2.46	2.56	2.35	2.46
2	Score in transformational	M	2.64	2.75	2.89	2.78	3.76	3.91	4.02	3.90
		SD	2.28	2.32	2.27	2.65	2.62	2.36	2.30	2.43
3	Overall score in ILM	M	2.60	2.72	2.83	2.73	3.80	3.90	4.03	3.92
		SD	2.39	2.61	2.52	2.54	2.54	2.46	2.33	2.45
% Students pass to Prep. S			29.56	30.62	35.95	-	58.16	61.13	66.68	-
Rank out of 23 Sec. Schools			23rd	22nd	21st	-	3rd	2nd	1st	-

Note: RLAS-23, RLAS-22 & RLAS-21 are code name of Group-1 schools. Similarly, RBAS-3, RBAS-2 & RBAS-1 are code name of Group-2 schools. The accompanied number indicates their rank.

The data shown in Table 3 above, revealed that the performance of Group-1 schools, which are identified by code names for RLAS-23 ($M=2.55$, $SD=2.5$), RLAS-22 ($M=2.68$, $SD=2.5$) and RLAS-21 ($M=2.76$, $SD=2.27$), respectively, were average. This implies that participants of Group-1 were partly dissatisfied with the leadership influence of their school principals, in terms of instructional leadership

behaviours they exhibited in performing the core business of the school. While participants revealed the performance of Group-2 schools of RBAS-3 (M=3.83, SD= 2.46), RBAS-2 (M=3.89, SD=2.56) and RBAS-1(M=4.04, SD=2.35), respectively, were high. This result implies that principals of Group-2 exhibited appropriate leadership behaviours and thus, they satisfied major stakeholders by exhibiting the appropriate type of leadership behaviours in leading the teaching-learning process.

With respect to transformational leadership, the performances of Group-1 schools were rated as average. Namely, the performance of the school RLAS-23 (M=2.64, SD=2.28), RLAS-22 (M=2.75, SD=2.32) and RLAS-21 (M=2.89, SD=2.27), respectively, were ascertained as ineffective in winning the full dedication of members, which in turn, shows weak collaboration prevailing in the school. To the contrary, the performances of Group-2 principals' scores were found to be high regarding this behaviour. That can be ascertained from the score of school RBAS-3 (M=3.76, SD=2.26), RBAS-2 (M=3.91, SD=2.36) and RBAS-1(M=4.02, SD=2.30), respectively. The result of the analysis shows that school principals of Group-1 were ineffective, since all the school RLAS-23 (M=2.64, SD= 2.28),RLAS-22 (M=2.75, SD=2.32) and RLAS-21 (M=2.89, SD=2.27), respectively, performed at the bottom line of the average score, whereas performance of Group-2 schools, RBAS-3 (M=3.80, SD=2.54), RBAS-2(M=3.90,SD=2.46) and RBAS-1(M=4.03,SD=2.45), respectively, were rated high. This implies that stakeholders in Group-2 were satisfied with the appropriateness of the instructional and transformational leadership exhibited in the work process.

Furthermore, the relationship between instructional and transformational behaviours has scrutinized, visually, by plotting the paired measurements on a graph with each pair of scores being representative of the performance of a sample school principal. Regarding the importance of scatterplot, Cohen, Marion, and Morrison (2007) stated that it helps to display the distribution of schools/points/scores, in accordance with their comparative ranking, on the two-dimensional variables. In line with this understanding, by putting the instructional behaviours on the 'X' axis, and the transformational behaviours of principals on the 'Y' axis, the relative position of each sample school is determined. Their relative position is determined by the extent to which their school principals effectively practiced the two ingredient behaviours. Accordingly, the relative position of the six sample schools is demonstrated in Figure 1 below.

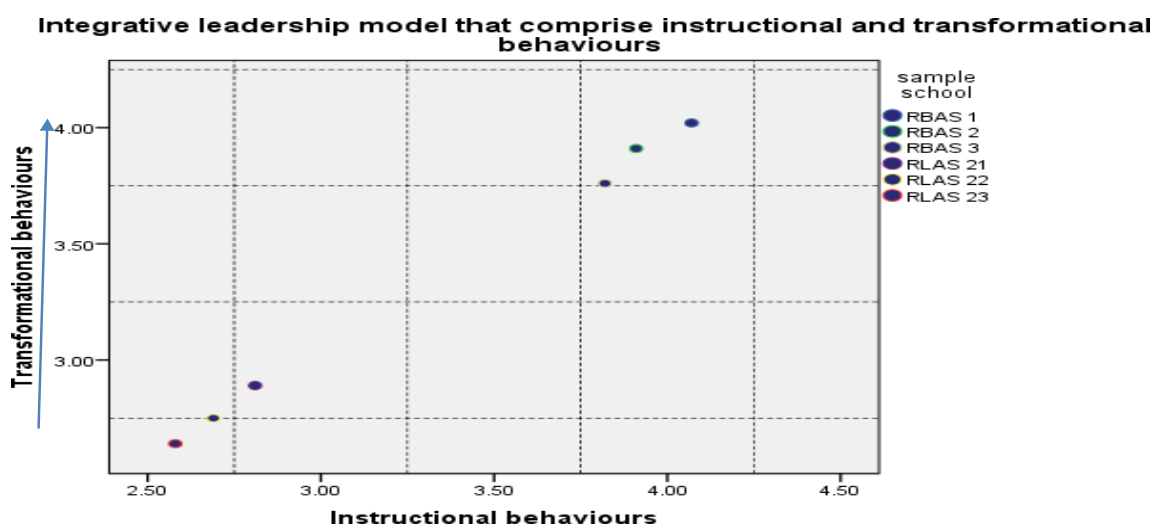


Figure 1: Performance of principals in exercising instructional and transformational component of the integrative leadership model

The above graph revealed that the position of the best achiever schools, namely RBAS-3, RBAS-2 and RBAS-1, respectively, are at the right-top side of the graph. This means that it is situated at the 3rd quadrant position, which implies that those mentioned as best achiever schools, have high scores in employing both the instructional leadership, as well as the transformational leadership behaviours, at the same time. In a similar analysis, the position of least achiever schools, which were identified with the code name of RLAS-23, RLAS-22, and RLAS-21, respectively, are situated in the first quadrant of the graph, which is at the left-bottom position. This implies that least achiever schools have low performance in employing both the instructional and transformational leadership behaviours. The graph shows that all the best achiever schools, practiced both instructional and transformational behaviours at a higher level. It also illustrated low performance in practicing integrated leadership in the least achiever schools. Thus, it is reasonable to correlate high performance, in the two ingredient behaviours of integrative leadership, with high student achievement.

Besides computing the correlation between dependent and independent variables, and testing a related hypothesis with appropriate inferential statistics, helps to come to the correct conclusion. With this understanding, first the correlation between the integrative leadership model and student academic achievement, Pearson's product moment coefficient was used to analyse this. The correlation between integrative leadership behaviours and student achievement is presented in Table 4 below.

Table 4: Correlation between integrative leadership model and student achievement

Pearson Correlation	Integrative Leadership Model (ILM)	Student Achievement (SA)
Integrative Leadership Model (ILM)	1	0.9055682214142797**
Student Achievement (SA)	0.9055682214142797**	1

*Note: ** denotes the rejection of the null hypothesis at 5% significance level*

The correlation results seen in Table 4, revealed the presence of statistically significant correlation between the integrative leadership model and student academic achievement. As to the strength of the correlation between the dependent variables and the independent variables, different authors suggested different interpretations of the values of the correlation coefficients; however, we applied Taylor's (1990) classification. The results obtained, using Pearson-product moment correlation, revealed a statistically significant correlation between an integrative leadership model and student academic achievement ($r = 0.90$, $p = 0.05$). This implies that those school principals who exhibited a comprehensive leadership style, which incorporates instructional and transformational behaviours, may succeed in improving student achievement, while those being reluctant, were found to be less successful. In addition to the correlation test, the above alternative hypothesis was also tested with regression statistics by using SPSS version 25. The computed regression result is presented in Table 5 below.

Table 5: The computed regression result of integrative leadership model

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>	<i>R²</i>	<i>Adjusted R²</i>
C	-0.219632	0.018584	-11.81843	0.0000	0.82	0.82
ILM_SUM	0.010915	0.000286	38.12810	0.0000**		

Note: **denotes the rejection of the null hypothesis at 5 percent significance level

Dependent Variable, Student Achievement Independent Variable, integrative leadership
Method, Least Squares Included observations, 321

As Table 5 clearly shows, effectively practicing an integrative leadership that comprises instructional and transformational behaviours may enable principals to increase student academic achievement. Precisely speaking, the coefficient 0.010915 shows an increase of 1 per cent in the effective application of an integrative leadership style and yields almost a 1 per cent improvement in student achievement. Further, the size of the effect, as measured by r^2 , was relatively large ($r^2=.82$), being 82 percent of the variance in student academic achievement which accounted for the employment of an integrative leadership model by principals. The probability value ($p=0.0000$) of an integrative leadership model confirms the presence of strong statistical evidence regarding the significant effect it has on student academic achievement. This statistical evidence indicates the possibility that ILM has strong, positive effects on student academic achievement.

In accordance with the chosen design, small qualitative data was collected and analysed in the second phase of the study to supplement quantitative results which were obtained earlier. Respondents were asked to suggest leadership behaviours/styles that they perceived as effective in enhancing better student achievement. In their response, most participants (50 % of P, 75 % Sup, 50% of Exp, & 50% of PTSA chairman) which account 61percent of the contributors proposed a combined leadership style that offers quality instruction and the transformation of the school community (cf. 5.2.3). The importance of exhibiting leadership behaviours which assists in preserving a positive culture, was indicated by a considerable number of participants. For instance, Exp-2 suggested that,

In my opinion, principals to be effective, they must realize the provision of quality instruction through well planned, organized and implemented teaching-learning program. They required to exhibit leadership behaviors that inspire, motivate, and empower members so that they strive to achieve higher result and promote a positive school culture that help to sustain improvement.

Furthermore, P-5's response has taken as the second representative view that signifies the opinions of those participants who recommended integrative leadership as effective model (cf. 5.6.3). He stated that, "*Comprehensive leadership model may enable principals to succeed in two major areas, in provision of effective teaching-learning process and in securing collaboration and commitment of members in realizing school goals*". Generally, the findings obtained from qualitative data analysis coincide with the quantitative results obtained earlier in the first phase.

4. Discussion

The discussion hereunder is based on the findings obtained from descriptive and inferential analysis of the quantitative data, as well as from the content analysis of the qualitative data. The findings obtained from the descriptive analysis in Table 1 show high performance, both in designing and communicating the school's mission, has enabled Group-2 principals to secure collaboration with stakeholders. Specifically, the high-performance score of Group-2 principals in practicing the function of 'framing school goals' and 'communicating the school's goals shows their effectiveness in both settings clear, aspiring, and feasible goals and in communicating the established goals (cf. par.5.5.2.1).

Effectiveness in practicing the core dimension of 'managing instructional program', which incorporates leadership functions of 'supervising and evaluating instruction'; 'coordinating the curriculum'; and 'monitoring student progress', determines the degree to which effective types of teaching-learning processes are carried out. Evidently, the significant difference observed between the performance of principals of Group-1 and Group-2 schools, in practicing these three functions, may determine the quality of instruction which has a direct impact on student achievement. The results obtained in this study, is consistent with the findings of the literatures, which revealed that principals who effectively supervise and evaluate instruction, provide professional support to teachers, and monitor instruction through classroom visits, and can align classroom practice with the ultimate goals of the school, which is student achievement (cf. Alig-Mielcarek, 2003; Leithwood & Seashore-Louis, 2012).

High performance in the dimension of 'promoting positive school learning climate', by principals of Group-2 schools, can be observed from the data analyzed in Table 1, above. Perhaps the most significant difference observed in the performance of the two groups, is seen in 'promoting professional development of teachers' in all the five leadership functions as set under the third dimension. The study shows that the principals of Group-1, perform this function unsuccessfully, while the principals of Group-2 accomplished the function at a higher level. This implies that the teachers' sense of professionalism in Group-1 schools, were fading through time as their principals gave less value to it, while teachers' proficiency in teaching were blooming in Group-2 schools. Similarly,

regarding the function of 'maintaining visibility', Group-2 principals scored high, whereas Group-1 principals exhibited an average performance. The maintenance of high visibility shown by Group-2 principals assisted them to not only recognize the actual teaching-learning process and the interaction between different stakeholders in various activities of the school, but also offered an opportunity to motivate their teachers. This result is incongruent with the findings of Kwinda (2002), who stated that visible principals motivate teachers; monitor instruction; provide support; and has knowledge of what is going on in their school. Regarding the provision of incentives for teachers and learners, the results of the analysis revealed the effectiveness of Group-2 principals. This implies that principals of Group-2 were effective in motivating both teachers and students. By doing so, these principals were successful in strengthening desirable behavior and commitment in their members.

The result of the data analysis, as seen in Table 2, shows that by practicing transformational leadership behaviors, at higher level by principals of Group-2, enables them to inspire, motivate and empower the school community and in turn this motivates the members to work with determination to realize better student achievement. This result is consistent with the findings of Nguni et al., (2006) as well as Ross and Gray (2006), who advocates the use of transformational behavior for improving student achievement, as it has a stronger effect on teachers' commitment and empowerment; multi-stakeholder participation in decision making; as well as promoting self-initiated change.

When the practice of the individual item, is taken specifically into consideration, principals of Group-2 have a high performance in the vision cluster and thus, it enables them to obtain allies who accept the school's vision as theirs and is enthusiastically committed to its realization. Evidently, the descriptive analysis results of this study indicated that Group-2 principals performed effectively, both in the function of 'developing shared vision', as well as in 'building consensus on the vision and priorities' (cf. par.5.5.2.2). Group-2 schools had committed members, who strived for achieving the best result due to their school principal's influence on their sense of efficacy, willingness to learn from others and ability to examine the value of the existing knowledge, assumptions, and strategies (cf. par. 5.5.2.2).

Regarding practicing the three functions, set under 'performance cluster', Group-1 principals accomplished it moderately, while Group-2 principals performed it at a higher level. Specifically, exerting effective influence through the communication of high expectations by principals of Group-2, were instigating members to achieve the best results. Similarly, high performance in 'offering individualized assistance' by principals of Group-2 schools, enables them not only to recognize member's strengths and weakness, but also to offer appropriate individualized support. The significant difference was seen in delivering intellectual stimulation, which benefited Group-2 principals to make constant improvements by encouraging members to examine the existing assumptions, values, practices, and strategies for its appropriateness. Principals of the best achiever schools, strengthen positive school culture, by being role models and by

going beyond their personal interest, building trust within the school, and by sharing leadership and decision-making authority. The performance of Group-1 principals was identified as moderate in all four behaviors, set under the culture centered cluster, which helps to develop a positive work culture in the school, while the performance of Group-2 principals was found to be high (cf. par. 5.5.2.2).

Notwithstanding the descriptive results discussed above, the following advanced interpretation has been made based on the results obtained from the inferential statistics which are set out in Table 3, 4, and 5, as well as in Figure 1. The correlation between the effective practicing of ILM and student achievement is positive and strong (see Table 4). Evidently, the results obtained from the computed Pearson moment correlation ($r = 0.90$, $p = 0.05$), revealed the presence of statistically significant correlation (cf. par.5.5.2.3). Furthermore, the findings which were identified from the qualitative data analysis, has strengthened the above results. Most participants proposed integrative leadership as an appropriate model. They argued that when principals exhibit instructional behavior, the teaching-learning process is influenced positively and concomitantly when engaged in transformational behavior which inspires, motivates, and empowers stakeholders, and consequently provokes them to achieve a higher-level result (cf. par.5.6.3).

The hypothesis, H1, stated as, "*Principals' who score high in performing instructional and transformational components' of an integrative leadership model are effective in improving students' is, thus, confirmed.* This was revealed by the results of the regression coefficient ($r = 0.010915$, $p = 0.0000$) that was obtained from the hypothesis test, and it implies an increase in the practicing of ILM by one percent which may yield an almost one percent improvement in student achievement. Furthermore, the results obtained in terms of effect size, as measured by r^2 was large ($r^2 = .82$), indicated almost 82 percent of the variance in student achievement which was accounted to the practicing of ILM (cf. par.5.5.2.3).

By using graphic analysis, the relationship between the two constituent behaviors of the ILM was examined visually, by plotting the paired measurements on a graph. Each pair of scores represents the performance of the six (6) sample school principals in the two ingredient leadership behaviors (see the detail in section 5.8). The graphic result shows the relative position of the six (6) sample schools which represent either the category of least achiever or the category of best achiever schools of the zone. As seen in Figure 1, the graph illustrates that better academic achievement of students in the schools RBAS-3, RBAS-2 and RBAS-1, respectively, were possibly an attribution of principals' effectiveness in practicing both, instructional and transformational leadership behavior.

Conclusively, high performance by principals of the best achiever schools, both in the aspect of the teaching-learning process, as well as transforming and empowering the school community, may inspire members to go beyond their personal interest. Thus, high engagement of principals in leadership behaviors that enables the management of an instructional program and transforming the school community, which may inspire and empower the school community with

the commitment to help realize better student achievement. Besides these two leadership behaviors, preserving a positive school culture and climate is identified as a third core ingredient from the content analysis of the third dimensions of the instructional model of Hallinger's (2005); the transformational model of Leithwood and Jantzi (2006); as well as from the suggestions of a considerable number of interviewees. We are, therefore, convinced that these core leadership behaviors should be added as the third component of an integrative leadership construct, which we propose as an effective model to enhance better student achievement.

5. Conclusion

Even though, this study contributes by adding certain new perspectives and insights that assists in extending the frontier of knowledge in the area, it cannot be free from limitations. Amongst others, the results of this study may not be representative of all secondary schools of the country of Ethiopia. Thus, the purposive sampling procedure used in selection of the sample schools; as well as the compactness of the study area, the generalizability of the findings can be in question. Further research is recommended in future, to minimize the impact of the assumed limitations of the study. We suggest future studies to verify the effectiveness of the integrative leadership model, when it is carried out on a large scale, as well as in diversified school environments. Furthermore, a comparative study on the effect of various leadership styles on student successes is useful as to assist in gaining additional insight and direction on which scholars need to emphasize.

6. Recommendations

In line with the findings of this study, school principals are recommended to exhibit high engagement in the three core aspects of school leadership to realize better student achievement. These include the provision of effective leadership in the teaching-learning process, which determines the extent to which students learn, as well as transforming and empowering the school community, which may stimulate members to work with commitment and preserve the positive school climate, which enhances the suitability of achieved success. Thus, to be effective in realizing better student achievement, secondary school principals are required to practice those interdependent core leadership roles at higher levels in an integrative way. These three leadership behaviors are used as core pillars /components in our integrative leadership model, reinforcing each other and working as a system which implies a failure in one core area, may affect performances in the other two complementary aspects (cf. par.3.3, 3.4 & 3.6).

Although all specific functions, set under instructional leadership, help to carry out the teaching-learning process properly, effectively practicing the core dimension of the 'managing instructional program', which incorporates the three functions, such as 'supervising and evaluating instruction'; 'coordinating the curriculum'; and 'monitoring student progress', determines the degree to which a quality teaching-learning process is carried out, special emphasis must be given to this dimension to realize better student achievement (cf. par. 5.5.2.1 & 5.6.3). Similarly, the performance center dimension, that comprises the leadership role

of 'holding high performance expectations'; 'providing individualized support'; and 'supplying intellectual stimulation', contributes significantly to the improvement of student achievement, by appealing to the motivation and capability of the school community (cf. par. 5.5.2.2 & 5.6.3).

Generally, we tried to develop and portray ILM as an effective style that enhances better student achievement, based on the concepts reviewed from the various related literatures and the Learning Centered Leadership theories which we consulted, as a conceptual framework and, more importantly, the findings we obtained from the empirical data analysis of this study (cf. par.3.2 & 3.6). Therefore, we propose the ILM, which comprises of the instructional and transformational behaviors, as well as leadership behaviors which promotes a positive school climate. Accordingly, we propose a new model of ILM, which comprises the three core leadership roles, named: leading instruction; empowering and transforming stakeholders; and preserving a positive school climate.

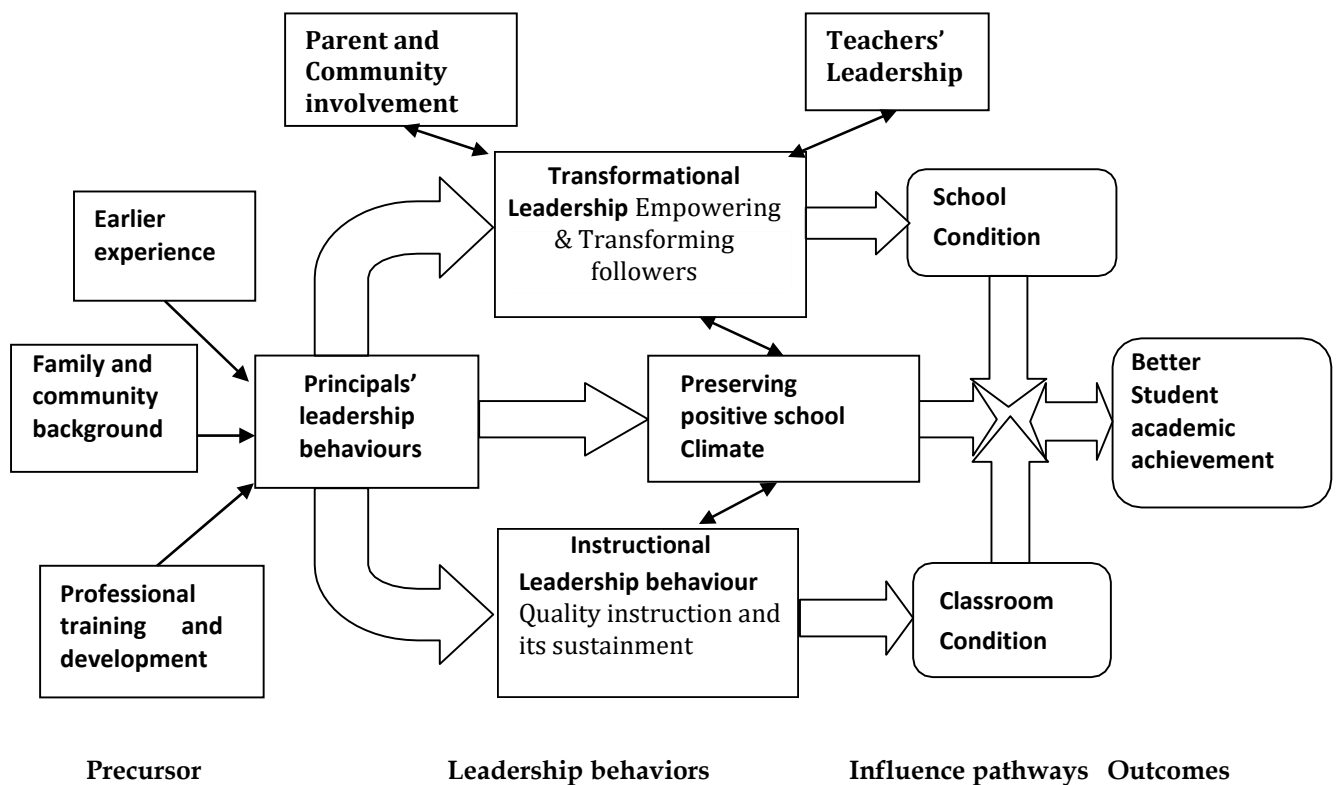


Figure 2: Integrated leadership as an appropriate model for improving student's achievement

As shown in the left side of the diagram in Figure 2, it is assumed that the school principals' leadership behaviors are influenced and shaped by his/her earlier experience; the culture of the leaders' family and the community; and his /her professional training and development. Furthermore, the box seen at the bottom which comprises four variables is used to illustrate how the different component parts of the diagram are being interdepend on each other. Basically, we propose

leadership behaviors of school principals, as set out under the three core functions. Principals, to be effective in realizing better student achievement, are required to lead the instructional program adequately, which is a foundation of student learning. Simultaneously, an appropriate type of transformational leadership behaviors should be exhibited, which governs the commitment level of the school community, and the preservation of a positive school climate, which has a direct effect on maintaining the continuity of success. Accordingly, from the findings of this study and concepts extracted from related literatures, we propose practicing effective instructional behaviors, transformational behaviors, and leadership behaviors, which help to preserve a positive school culture and climate, as a system that assists better student achievement.

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