RESEARCH PAPER

School Enrichment for Successful Academic Performance and Superior Behavioral Characteristics: The Case of Ambo University Non-Boarding Special Secondary School

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Abstract

School enrichment is a key activity to enhance the quality of education. School enrichment activity is conceptualized as the provision of academic facilities that support students' academic performance. The purpose of this study was to describe behavioral characteristics, academic performance, and school enrichment activities of Ambo University Non-Boarding Special Secondary School students. To this end, quantitative design through descriptive research method was employed. Scale for Rating Behavioral Characteristics of Superior Students and Purdue Academic Rating Scale were used to generate data. 100 students (Male = 56, Female = 44) were selected through simple random sampling, 8 teachers were selected by purposive sampling, and 3 school leaders were selected by comprehensive selection. Students' academic performances and behavioral characteristics were rated by subject teachers and principals. Results showed that leadership characteristic was the leading while creativity characteristic was the least behavior displayed by students. Rating of students' academic performances revealed that students were excellent in Mathematics, English, and Science whereas strong averages in Social Studies. Mathematics performance (45.42 out of 60) was leading and in none of the subjects students fell under average performance. Enrichment activities at the school were appreciable with availability of 74.1%, but not full-fledged. STEM centers should be functional to enrich students' learning process.

Keywords: Academic, Behavior, Enrichment, Giftedness, STEM

Introduction

School enrichment is a key activity to enhance the quality of education. It is conceptualized as the provision of academic facilities that support students' academic performance. The school-wide enrichment model (SEM) developed by Reis and Renzulli (2014) is an educational approach that aims to provide enrichment activities and opportunities. This model is based on the concept that all students have their potential that can be developed and nurtured through enrichment activities. It involves special programs, competitions, mentorships, and partnerships with community organizations (Reis and Renzulli, 2014).

When students are provided with engaging and supportive learning environments, their understanding, retention, and knowledge application tend to improve. The more students' learning is enriched and facilitated; the better academic performance is attained. Students who attend schools with adequate facilities, good teachers, and favorable environments perform better than those from schools with fewer facilities, unqualified teachers, and unfavorable environments (Mudassir and Norsuhaily, 2015; Dangara and Geraldine, 2019).

The quality of education in Ethiopia is a pressing issue that needs change. To be competent in this global era of knowledge economy, there is concern among countries of the world on issues of high academic performance of students and school-wide enrichment activities (Ambrose, 2016). Quality of education in Ethiopia is deteriorating and

students' academic performance is becoming very poor in the Ethiopian Secondary School Leaving Certificate Examination (ESSLCE). The situation becomes worse in the 2022 and 2023 academic years. Evidence from the Ministry of Education showed that, out of 896,520 students who took the ESSLCE, only 3.3% (30,034) passed the examination in the 2022 academic year. Out of 845,099 students who took the Ethiopian Secondary School Leaving Certificate Examination in 2023, only 3.2% passed the examination (MoE, 2022). The Ministry of Education stated that students from 1328 (42.8%) secondary schools did not pass the examination totally while students from 5 schools (special secondary schools) passed the examination 100%. This indicates how far the quality of education at secondary schools in Ethiopia failed and needs attention. One reason for the downhill quality of education in Ethiopia might be the scanty of enrichment activities in secondary schools.

Schooling high-achiever students in Non-Boarding Special Secondary Schools is aimed at encouraging students with high academic ability to grow vigorously with an astonishing base that helps them in further learning. Global experiences indicate that education at Non-Boarding Special Schools operates at very high levels by positively meeting students' educational needs (Bass, 2014). Recently, some universities in Ethiopia started special secondary schools in which school enrichments are practiced. Those universities are bridged with secondary schools to boost the academic performance of Non-Boarding Special Secondary School students. Regarding this, Tortop (2013) stated that bridging the academic program of secondary school students with universities is important for mentoring students' learning.

Federal Ministry of Education and Regional Education Bureaus in Ethiopia are paying attention to building and starting special secondary schools. There are a few boarding and non-boarding special secondary public schools in Ethiopia that are run by the government budget. The Federal Democratic Republic of Ethiopia Ministry of Education has worked to achieve accessibility of education for all (EFA) and achieved more than 80% accessibility. However, inequality and quality are big problems in the education sector. Regarding this, Woldetsadik and Raysarkar (2017) stated that inequity in both availability and quality of education is prevalent and improvement in learning outcomes has not kept pace with the expansion of Ethiopia's education system.

School enrichment generally for all and specifically for learners who have the potential for superior performance in learning, creativity, leadership, linguistic, and artistic domains are among popular topics all over the world. Its popularity has been increasing with an increase in demand and societies' awareness of the right to education for all students (Tortop, 2013; UNESCO, 2005). The presence of school enrichment activities that are supported by universities (i.e. government finance) is used to protect the right to learn and means to realize the goal of appropriate quality education for all. The very purpose of school enrichment activities is to provide young people with maximum opportunities for self-fulfillment (Reis and Renzulli, 2014).

The educational budget that Ethiopia has allotted for education is limited when compared with the high enrolment rate of secondary school students and the price inflammation of educational materials. Regarding this, UNICEF Ethiopia (2022) stated that even though the national education budget allocation in Ethiopia increased by 70% in nominal terms, the real value of the allocated budget has shown a 22.5% decline due to inflammation. Recently, about 3,867,463 students have been attending secondary schools in Ethiopia (MOE, 2022). It is daunting to enrich these all students by fulfilling academic facilities from the limited educational budget. As the way out, universities in Ethiopia embarked on to bridge with non-boarding special secondary schools. Ambo University started Non-Boarding Special Secondary School (grade 9-12) in 2021. The objective of initiating this school was to encourage learners by close follow-up of the teaching-learning process through a near-teacher-learning support mechanism. Accordingly, students who have high academic

potential were given the chance to attend this school after recruited based on their academic merit. Regarding this, Dai (2015) stated that a merit-based education system should be based on what one can do rather than what one is.

Noticeably changed awareness of society on how important high-achiever students are for scientific innovation, sustainable development, technological advancement, and cultural progress is among the factors for increasing popularity of school enrichment activities (Heller et al., 2000). The school-wide enrichment is relevant for the development of students' academic behaviors. Research results in this area demonstrated that academically high-performing students who attend enrichment activities are more likely to graduate high school, attend college, and demonstrate increased knowledge and skills (Renzulli et al., 2020).

Students' behavior determines their learning and academic performance. Hence, it is important to study students' learning, motivation, creativity, leadership behaviors, and academic performance. To the extent of the current researcher's knowledge, there was no empirical study regarding school enrichment for successful academic achievement behavior. Hence, this study can add value to the literature in this area. The objective of this study was to describe students' behavioral characteristics, academic performance, and school enrichment activities at Ambo University Non-Boarding Special Secondary School (AUNSSS). To deal with these objectives, the following research questions were addressed.

1. How do teachers rate their students' behavior characteristics and academic performance?

2. What school enrichment activities are available in Ambo University Non-Boarding Special Secondary School?

Materials and methods

Research Design

To extract data that would satisfactorily address the above basic research questions and deal with the objective of the study, the researcher used a quantitative research design through the descriptive research method.

Sample and Sampling Techniques

This study was conducted at Ambo University Non-Boarding Special Secondary School, which is located in Ambo, Western part of Ethiopia. The school was selected purposively because to researcher believed that the school met certain criteria for school enrichment activities. Regarding this, Mills and Gay (2019) stated that purposive sampling is the process of selecting a sample based on the researcher's beliefs or knowledge of the subject under the study. The total population of this study was 411 (387 students, 18 teachers, 3 foreign language teachers, 1 director, 1 vice director, 1 supervisor). A simple random sampling method was used to select 100 (Male = 54, Female = 46) students. Students who participated in this study were selected from grade 9, 10, and 11. Twenty (20) students were selected from grade 9, forty (40) students were selected from grade 10, and forty (40) students were selected from grade 11 regardless of their grade level. This was more than one-fourth (25.8%) of the total students. Hence this sample size is tolerable. It is common to take a sample of 10% to 20% of the population in educational survey research (Mills and Gay, 2019). Eight (8) teachers were also selected by purposive sampling because they knew their students' academic performances and behavioral characteristics. One (1) principal, one (1) vice principal, and one (1) supervisor were selected by comprehensive (total) selection. Thus, the sample size of the study participation was 113.

Instruments

Scales for Rating Behavioral Characteristics of Superior Students (SRBCSS) and Purdue Academic Rating Scale (PARS) were used to generate data. The instrument for behavioral characteristics was adapted from a scale for rating behavioral characteristics of superior students (SRBCSS) that was developed by Renzulli et al. (2002). The SRBCSS represents a significant advancement in the expansion of the methodology for identifying behaviorally

superior students. SRBCSS is a non-norm-referenced observational scale that provides a lot of information to use in programming for students. The scales for rating the behavioral characteristics of superior students (SRBCSS) are used widely as part of a comprehensive plan for identifying potentially outstanding students (Davis and Rimm, 2004). The SRBCSS is among the most frequently used teacher-rating scales to assess the characteristics of high-ability students for eligible school enrichment programs (Renzulli et al., 2009). Four subscales (learning, motivation, creativity, and leadership) of SRBCSS were used in this study. The total items of SRBCSS subscales were 38 (learning characteristics, 11 items; creativity characteristics, 9 items; motivational characteristics, 11 items; leadership characteristics, 7 items). The questionnaires of SRBCSS were adapted and presented in the form of a six-level Likert scale type.

The instrument for academic performance characteristics was adapted from the Purdue Academic Rating Scale (PARS) developed by Feldhusen et al. (1990). The items on PARS were developed by Purdue University instructors from teachers' classroom observations, a review of the research literature in each area, and administration of the scales that were directly derived from teachers' classroom experiences with superior students. According to Feldhusen et al. (1990), PARS consists of five subjects. Four of them were used in the current study. The four parts of PARS used in this study were Mathematics, Science, English, and Social Studies. According to Rice (2012), the interval (cut-off point) used on PARS to categorize students' academic performance characteristics were indicated as follows: below average (< 20), average (20-33), strong average (34-42), excellent (43-51), and superior (52- 60). The pilot study result showed that Cronbach's alpha (α) reliability for the overall PARS with 60 items for the current study was r = 0.707. PARS deals only with students' academic performance characteristics. It may be affected little or not by culture. Hence, the contextual difference would not be significant, and it is said to be a culture-fair scale that appropriate to rate Ambo University Non-Boarding Special Secondary School (AUNSSS) students' academic performance.

Data Analysis Procedures

Students' behavioral characteristics were rated by eight (8) subject teachers and two (2) principals. The academic performance characteristics of students were rated by subject teachers. The teachers have given a brief explanation of how to rate the student's academic performance after vivid observation in and outside the classroom. It was assured that the teachers knew each student at least for six months before they were assigned to observe them. Based on brief orientation, the observation and rating took 25 days. This was to help raters to have sufficient time and to rate as accurately as possible to hold the dependability of data. Academic performance characteristics of science were filled by Biology, Physics, and Chemistry teachers, that of Mathematics was by Mathematics teacher, that of Social Studies was by Geography, History, and Civics teachers, and that of English was by English teacher. The scores from these raters were summed up and the average results were considered.

Raters' responses to SRBCSS were coded based on the 6-level Likert scale that was worth Never = 1, Very rare = 2, Rare = 3, Occasionally = 4, Frequently = 5, and Always = 6. Raters' responses to PARS were coded based on the 4-point Likert scale that was worth Never = 1, Sometimes = 2, Frequently =3, and Always =4. The mean of students' academic performance for each subject was also computed. Descriptive statistics (mean, standard deviation, and percentage) were used to describe students' behavioral characteristics. This method was used to determine students' learning, motivation, creativity, and leadership characteristics. Students' academic performances in four subject areas (Mathematics, English, Science, and Social Studies) and the school's enrichment activities were also analyzed in descriptive statistics. Statistical Package for Social Sciences (SPSS) version 23 was used to analyze data.

Ethical Statement

As far as the author's responsibilities are concerned, the researcher received permission from the school director to conduct this study. After the purposes of the study were disclosed, informed consent was obtained. Furthermore, the researcher was responsible to duly acknowledging all authors whose materials were referred to in this study and for those whose instruments have been adapted only for academic research purposes in this study.

Results

In this section data collected through SRBCSS and PARS are described and analyzed using tables. The first columns of the tables show the item numbers as they appear on the original scales. Behavioral characteristics of students, academic performance and school enrichment activities are described in this section.

Behavioral Characteristics of Students

Descriptive Statistics of Students' Behavioral Characteristics

Table 1. Learning characteristics of *AUNSSS* students.

Item No	Never	Very rarely	Rarely	Occasionally	Frequently	Always
1	0	0	7	32	42	19
2	0	0	4	23	55	18
3	0	0	3	30	52	15
4	0	0	7	24	42	27
5	0	1	6	27	42	24
6	0	1	17	23	41	18
7	0	0	7	33	40	20
8	0	2	17	26	41	14
9	0	0	5	27	37	31
10	0	0	9	16	44	31
11	0	0	13	15	47	25
Total	0	4	95	276	483	242
Weight	0	8	285	1104	2415	1452
Total score						5264
Mean = 4.78, Standard deviation = 0.66						

From Table 1, the total score on students' learning characteristics was computed to be 5264 (sum of total weight on the six levels). Thus, the mean learning characteristics of students was 52.64. When this mean is converted to a percentage, 79.75% of AUNSSS students' learning characteristics were similar to the behavior of superior students. This was calculated from the number of items and the highest possible result. The number of items in this subscale was 11 and the maximum possible result was 66. Then, the average value of students' learning behavior in percent was 79.75%.

Table 2. Motivation characteristics of AUNSSS students

Item No	Frequency of responses					
	Never	Very rarely	Rarely	Occasionally	Frequently	Always
1	0	5	10	23	44	18
2	0	0	9	27	43	21
3	0	0	9	27	49	15
4	0	0	10	24	48	18
5	0	0	9	36	41	14
6	0	3	6	29	46	16
7	0	0	12	30	40	18
8	0	1	8	26	45	20
9	0	3	11	20	38	28
10	0	2	8	26	44	20
11	0	5	15	29	36	15
Total	0	19	107	297	474	203
Weight	0	38	321	1188	2370	1218
Total score						5135

Mean = 4.60, Standard deviation = 0.76

From Table 2, the total score on students' motivation characteristics was computed to be 5135. The mean motivational characteristic of students was 51.35. Hence, about 77.8% of AUNSSS students' motivation characteristics were resemble to the behavior of superior students. This was calculated from the number of items and the highest possible result. The number of items in this subscale was 11 and the maximum possible result was 66. Then, the average value of students' motivational behavior in percent was 77.8%.

Table 3. Creativity characteristics of AUNSSS students.

Item No	Frequency of responses					
	Never	Very rarely	Rarely	Occasionally	Frequently	Always
1	0	1	10	32	46	11
2	0	0	12	34	46	8
3	0	0	6	32	51	11
4	2	4	7	31	38	18
5	0	2	6	29	47	16
6	0	0	14	43	35	8
7	0	1	3	33	48	15
8	0	0	7	29	45	19
9	0	2	3	36	44	15
Total	2	10	68	299	400	121
Weight	2	20	204	1196	2000	726
Total score						4148

Mean = 4.60

Standard deviation = .61

From Table 3, the total score on students' creativity characteristics was computed to be 4148. The mean creativity characteristic of students was 41.48. Hence, 76.8% of AUNSSS students' creativity characteristics were similar

to the behavior of superior students. This was calculated from a number of items and the highest possible result. The number of items in this subscale was 9 and the maximum possible result was 54. Then the average value of students' creativity behavior in percent is 76.8%.

Table 4. Leadership characteristics of AUNSSS students

Item No	Frequency of responses					
	Never	Very rarely	Rarely	Occasionally	Frequently	Always
1	0	0	7	32	34	27
2	0	0	4	23	35	38
3	0	0	1	25	39	35
4	0	0	1	14	37	48
5	0	0	2	27	37	34
6	0	3	9	17	29	42
7	0	0	3	29	35	33
Total	0	3	27	167	246	257
Weight	0	6	81	668	1230	1542
Total score						3527
Mean = 5.03						
Standard deviation = 0.73						

From Table 4, the total score on students' leadership characteristic was computed to be 3527. The mean leadership characteristic of students was 35.27. Hence, about 83.9% of AUNSSS students' leadership characteristics were similar to the behavior of superior students. This was calculated from number of items and the highest possible result. The number of items in this subscale was 7 and the maximum possible result was 42. Then, the average value of students' leadership behavior in percent is 83.9%.

Academic Performance

Descriptive Statistics of Students' Academic Performance

Table 5. AUNSSS students' average academic performance on PARS

Subjects	Number of students in the interval on PARS as rated by subject teachers					Mean Academic Performance	Mean of the Scale	Standard Deviation
	Below Average [< 20]	Average [20-33]	Strong Average [34-42]	Excellent [43-51]	Superior [52- 60]			
Mathematics	0	6	46	12	36	45.42	3.03	.620
English	0	12	35	29	24	44.76	2.97	.627
Science	0	16	24	19	41	44.58	2.98	.732
Social studies	0	27	60	13	0	36.2	2.41	.376

Table 5 showed that students' mean academic performance in the order from highest to lowest were Mathematics = 45.42, Science = 44.76, English Language = 44.58, and Social Studies = 36.2. Hence, Mathematics performance was leading academic performance and in none of

the school subjects Ambo University Non-Boarding Special Secondary School students

fell under average academic performance.

School Enrichment Activities Descriptive Statistics of School Enrichment Availability

Table 6. Description of Enrichment Available in School as rated by school management

S/N	Enrichment Activities Available in School	Level of Enrichment activities					
		Poor		Good		Excellent	
		fre.	%	fre.	%	fre.	%
1	Teachers' qualification in their subject area	-	-	3	100	-	-
2	Level of interaction between students and teachers	-	-	2	66.6	1	33.3
3	Healthcare facilities available in the school	3	100	-	-	-	-
4	Library facilities available in the school	-	-	3	100	-	-
5	Free school meal facilities available in the school	-	-	3	100	-	-
6	Laboratory facilities available in the school	-	-	3	100	-	-
7	Assessment & valuation policy to pursue learning	-	-	3	100	-	-
8	Functionality of STEM center	3	100	-	-	-	-
9	Provision of educational technologies (e.g. laptops)	3	100	-	-	-	-
10	Guidance & counseling services in the school	-	-	1	33.3	2	66.6
11	Learning by doing/manual working/ activities	3	100	-	-	-	-
12	Transportation service	2	66.6	1	33.3	-	-
	Total scores	14	466.6	19	633.2	3	99.9
	Mean	.38	93.3	.52	79.1	.08	49.9

As depicted in Table 6, with the mean score (M= 0.38) the school enrichment activities such as health care facilities, functionality of STEM center, provision of educational technologies, and blue-collar learning were poor. With mean score (M = 0.52) the school enrichment activities such as availability of qualified teachers in their subject area, library facilities, school meal facilities, laboratory facilities, and learning assessment and evaluation policy were good. With mean score (M= 0.08) the school enrichment activities such as interaction between students, teachers, and counselor were excellent. Thus, the school enrichment activities were appreciable, but not full-fledged (74.1%). A health care facility in the school was not available. Library facilities available in the school but there was no electronic library in the school. The school offers free school meal for students. Laboratory facilities available in the school were at good level but hands on practice method of teaching was not being exercised in the school. The school has workable learning assessment and evaluation policy to pursue learning in which the average passing mark for each subject is 70 and above. However, there was a center for science,

technology, engineering, and mathematics (STEM), it's not functioning and at poor level. The school did not provide educational technologies such as laptop for students. Guidance and counseling services available in the school was at excellent level. There was no learning by doing in the school. Transportation service for students was on and off and at poor condition.

Discussion

School enrichment activities provide opportunities for students to explore and develop their curiosity, goal-directed learning, and motivation to high achievement. Papworth (2014) explained that enriched school environment potentially affects the academic and non-academic outcomes of students. Similarly, Miller and Gentry (2010) stated that enrichment programs can provide various social and academic benefits for high-potential learners. These activities at Ambo University Non-Boarding Special Secondary School were considered to be satisfactory. But enrichment

activity such as STEM was at early stages that need attention. By implementing STEM, schools can create an engaging learning environment for students with high academic potential (Reis and Renzulli, 2014).

Students who are attending the Non-Boarding Special Secondary School show behavioral characteristics and academic performance of superior students. The findings of this study indicate that the most prominent behavior displayed by students is leadership characteristics while creativity characteristics are the least prominent. The results of this study reveal that AUNSSS students show 79% of learning behavior, 77% of motivation behavior, 76% of creativity behavior, and 83% of leadership behavior that resemble the behavior of superior students on SRBCSS. The reason for the lowest creativity behavior is the absence of subjects that focus on creativity that delivered through hands-on learning and learning-by-doing instructional methods. Regarding this, VanTassel-Baska and MacFarlane (2009) stated that instructional methods through problem-based learning support students' creativity.

Conclusions

The school enrichment activities have both areas of strength and areas that need improvement. Enrichment activities such as health care facilities and electronic library, STEM, transportation service, and provision of educational technologies are poor in the school. The level of school enrichment activities at AUNSSS is 74.1%. Teachers' ratings of students' behavioral characteristics reveal that 80% of AUNSSS students' behaviors are similar to the characteristics of superior students. Students' Mathematics performance is leading and in none of the school subjects

AUNSSS students fell under average performance.

Recommendations

Based on the findings of this research, the following recommendations were suggested. Close mentoring (follow-up) from higher academic officials of Ambo University is suggestible to maintain and advance students' positive behavior (learning, motivation, creativity, and leadership characteristics). To improve the low creativity characteristics of students, AUNSSS should adapt relevant extracurricular activities and implement the learning of students through the hands-on-learning at the STEM center. The level of school enrichment activities should be progressed particularly in the availability of 21st-century educational technology inputs such as laptop computers.

Limitations

This study was conducted on only one Non-Boarding Special Secondary School. Thus, it cannot be generalized for other Non-Boarding Special Secondary Schools. As the study used a descriptive method, the findings of the study did not show the cause and effect of behavioral characteristics and school enrichment activities on students' academic performance. Thus, potential biases or confounding factors for students' academic performance cannot be determined by the findings of this study.

Acknowledgments

References

Ambrose, D. 2016. Twenty-first-century contextual influences on the life trajectories. In Ambrose, D. and Stenberg, R. (Eds.), Giftedness and talent in the 21st century. Adapting to the turbulence of globalization (pp.15-42). Rotterdam: Sense Publisher.

Bass, L. R. 2014. Boarding Schools and Capital Benefits: Implications for Urban School Reform. The Journal of Educational Research, 107(1), 16-35.

Dangara, U. Y. and Geraldine, M. C. 2019. Evaluation of the Effect of Learning Environment on Student's Academic Performance in Nigeria.

Dai, D.Y. 2015. A Jeffersonian vision of nurturing talent and creativity: toward a more equitable and productive gifted education. Asia Pacific Educ. Rev. 16, 269-279.

FDRE Ministry of Education. 2022. Education Statistics Annual Abstract. Addis Ababa.

Feldhusen, J., Hoover, S. and Sayler, M. 1990. Identifying and educating gifted students at the secondary level. New York: Trillium Press.

Heller, K., Monks, F., Sternberg, R. and Subotikn, R. 2000. International handbook of giftedness and talent. (2nd ed.). New York: Elsevier Science Ltd.

Miller, R., and Gentry, M. 2010. Developing talents among high-potential students from low-income families in an out-of-school enrichment program. Journal of Advanced Academics, 21(4), 594-627.

Mills, G. E. and Gay, L. R. 2019. Educational research. Competencies for analysis and applications. (12th ed.). Hudson Street, New York: Pearson Education Inc.

Mudassir, I.U. and Norsuhaily, A. 2015. The Influence of School Environment on Academic Performance of Secondary School Students in Kuala Terengganu, Malaysia.

Papworth, B. A. 2014. Attending boarding school: A longitudinal study of its role in students' academic and non-academic outcomes.

Reis, S. and Renzulli, J. 2014. The Schoolwide Enrichment Model. How to guide for talent development. Waco: Texas, Prufrock Press Inc.

Renzulli, J., Smith, L., White, A., Callahan, C., Hartman, R. and Westberg, K. 2002. Scales for Rating the Behavioral Characteristics of Superior Students. Revised edition. Mansfield Center, CT: Creative Learning Press, Inc.

Renzulli, J. S., and Reis, S. M 2007. Enriching curriculum for all students. Corwin Press.

Renzulli, J. S., Siegle, D., Reis, S. M., Gavin, M. K., and Reed, R. E. S. 2009. An investigation of the reliability and factor structure of four new scales for rating the behavioral characteristics of superior students. Journal of Advanced Academics, 21(1), 84-108.

Renzulli, J. 2012. Reexamining the role of gifted education and talent development for the 21st Century: A four-part theoretical approach. Gifted Child Quarter, 56(3), 150-159.

Renzulli, J. S., Reis, S.M. and Brigandi, C. 2020. Enrichment Theory, Research, and Practice. 3rd ed. Routledge, imprint.

Rice, C. 2012. Policy and Procedures for academically gifted and talented students.

Tortop, H. S. 2013. A new model program for academically gifted students in Turkey: overview of the education program for the gifted students' bridge with university (EPGBU). Journal for the Education of Gifted Young Scientists, 1(2), 21-31.

UNESCO 2005. Guidelines for Inclusion: Ensuring Access to Education for All.

UNICEF, Ethiopia 2022. Education investments in challenging times. Addis Ababa.

VanTassel-Baska, J., and MacFarlane, B. 2009. Enhancing creativity in curriculum. International handbook on giftedness, 1061-1083.

Woldetsadik, G. and Raysarkar, C. 2017. Textbook provision for all in Ethiopia. Lessons learned from the General Education Quality Improvement Project (GEQIP)1. International Bank for Reconstruction and Development / The World Bank.