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Secondary School Instructional Response to the World of Work: Employers' Needs and Pedagogical Practices

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ABSTRACT

This study examines the relevance of secondary school pedagogical responses to the skills demand of the world of work. Employers of secondary school graduates, secondary school principals, teachers and students in Oromia, Ethiopia, were the target population of the study. Results revealed that school leaders and teachers perceived preparation for national examination and higher education as the major intent of secondary education. They had no adequate understanding of the role of secondary education in preparing students for the world of work. The study identified that communication skills, teamwork, time management, independent work, ability and readiness to learn, and self-management are the competencies employers require from employees who graduated from secondary school. However, a teacher-centered instructional approach that has an insignificant contribution to acquiring the required work skills was the dominant pedagogical strategy employed in the schools. Thus, it is concluded that the space provided to prepare students for work in secondary school instruction was not relevant enough to equip students with the competencies required in the world of work.

Keywords: competencies, pedagogical practice, secondary education, work skills, world of work

INTRODUCTION

In developed countries, the education that children receive during their teenage years has long been recognized as crucial to the development of job skills and other attributes that affect the ability to function productively as a member of society (Eubanks & Eubanks, 2009). In Africa, gradual attempts were made to change and improve the role of secondary education in line with the progress of development of the countries. Previously, in most African countries, the role of secondary education was mainly to enable students to acquire the knowledge and skills that are important to prepare them for future education (Bregman & Bryner, 2003). Recently, it has been perceived as the level at which students develop knowledge, attitudes and skills for work and higher education, and it serves as a bridge for schools to the world of work. It is clearly indicated in UNESCO (2005) that secondary education provides effective preparation for those entering the world of work either as self-employed entrepreneurs or as wage employees as well as for those proceeding to professional or academic tertiary education. Lewin and Caillods (2001) also consider secondary education as it provides students with the opportunity to acquire skills, knowledge and attitudes that enable them to manage their own lives, develop job-oriented skills, continue learning, and participate in society. Unless relevant education is provided, none of the countries will realize the goal of preparing high school students for work or the next level of education.

As indicted in different policy documents, the purpose of secondary education is to prepare students for examinations and to equip them with the skills that are essential in the world of work. However, one of the challenges of secondary education is related to the existing narrow conception of the goals of secondary education. In some African countries, including Ethiopia, there is a widely accepted opinion that students' success and schools' effectiveness are mainly determined based on teachers' assessments and national examinations that involve passing or not passing students in certain subjects. That is, preparation for tertiary education has been accorded undue reference over the other equally important goals: personality development and preparation for the world of work. However, data from national examination agencies confirmed that a significant number of grade 12 graduates 'do not qualify' to proceed to tertiary education. The principal opportunity open for those who were not able to go to university was the labor markets that demand diversified skills. Consequently, it is very important to ask how well those youth were prepared for the labor market.

Since its inception, the concern to improve the status of secondary education in developing countries has often revolved around the question of the relevance of education (Ndala, 2006). Several studies conducted on Ethiopian education over the years (Solomon & Aschale, 2019; Joshi & Verspoor, 2013; Maaza, 1966; Tekeste 2006) have revealed that relevance is among the

bottleneck problems of the education system. However, attempts made to address the problem have not been very successful (Alemayehu & Lasser, 2012), and secondary school graduate unemployment continues to increase from time to time (Tewabe, 2018). In addition, such local studies have not considered the skills demand of the labor market. Therefore, the intention of the current study was to assess the skill demand of employers and pedagogical responses to the world of work. More specifically, the study was intended to:

- Identify the skills employers expect from secondary school graduates and to compare them with the acquired skills.
- Examine school leaders' and teachers' understanding of the purpose of secondary education.
- Appraise the pedagogical practices of secondary school against the skills demand of the world of work.

LITERATURE REVIEW

Today's world of work demands not only job-specific technical skills and academic knowledge but also core work skills that enable graduates to perform a task efficiently and effectively. These skills are transferable across domains, geographies, work and life contexts, and cross-functional and cross-curricular in education (Whittemore, 2018). Such skills are known by different names, including transferable skills, key competencies, soft skills, generic skills, nontechnical skills and 21st-century competencies/skills (Amadio, 2013). They are not job specific but are skills that cut horizontally across all industries and vertically across all jobs at all levels (Suarta et al., 2017). These skills are also prerequisites for further education and for acquiring technical and vocational skills and transferable skills that enhance the prospect of getting employees equipped with the skills required to effectively perform in the workplace. Ball, Joyce, & Butcher (2016) believe that these skills are the key for students to live and work in diverse, complex environments. Laura (2013) believes that employers want employees who can communicate and interact effectively with coworkers, think creatively, independently solve problems, manage themselves and their time and at work, work with others in teams or groups, handle basic technological tools in the workplace, lead human and material resources effectively and provide and accept feedback through supervision.

Researchers categorized these core work skills under different domains of competencies. For instance, according to the UNESCO framework, the skills that are essential for work are categorized into five broad domains of competencies: innovative and critical thinking, media and information literacy, interpersonal skills, global citizenship, and intrapersonal skills (UNESCO, 2016a). Similarly,

Chalkiadaki (2018) grouped work skills into personal skills, social skills, information and knowledge, and digital literacy (as cited in Joynes et al., 2019). Foundational/basic skills, social skills, higher order cognitive skills, intrapersonal skills, and positive self concept are the categories of work skills employers require from employees (Laura, 2013). The survey conducted by Care et al. (2018) also revealed that the skills that are highly preferred by most organizations around the globe are categorized under cognitive, interpersonal/affective, and intrapersonal domains of competencies. The work skills, values and attributes that are categorized under the three domains of competencies are leadership skills, learning and information management, communication skills, problem-solving, self-development, creativity and critical thinking skills.

No one can consider the effectiveness of the education system by ignoring the relevance of what the system provides to the school. What is taught, and how it is taught must be relevant, i.e., learning activities and environments must give learners the best possible opportunities for success and provide an appropriate curriculum and flexible delivery arrangements to meet their diverse destinations (Colby, 2000). Marriott and Goyder (2009) believe that relevant education maintains the balance between the different modes of knowing (cognitive, affective, and psychomotor) and recognizes mental, physical, emotional and spiritual development. The balance should be sought not only in relation terms of a balance to be established between knowledge, attitudes, values or skills; instead, it should perhaps be seen in terms of the converging influence of the various components of the educational process on the development of cognitive, affective, ethical, aesthetic and sometimes physical aspects (Tedesco et al., 2013). Hence, secondary school instruction should cater to the widest possible range of competencies, skills and abilities that are vital to put young people on the path to the world of work and help them satisfy the requirements of employers and the labor market (Laura, 2013). What is learned and taught (content and learning experiences), resources used (e.g., textbooks used to deliver teaching and learning), how it is delivered (methods) and assessed should encourage students to develop skills that are relevant to the demands of the world of work.

There is a real demand for quality education to ensure the competence of secondary school graduates in the labor market and the need for relevant education to meet the peculiar needs of a wider variety of learners and to satisfy the requirements of the world of work (UNESCO, 2005). However, most African countries, including Ethiopia, emphasized the expansion of secondary education without giving due attention to the relevance of curriculum and instruction. It is noted that failure to turn out students with relevant knowledge and skills has been the major problem of secondary education in Ethiopia (Joshi & Verspoor, 2013) and in Africa at large (UNESCO, 2005). Tedesco et al. (2013) argued that if

education is irrelevant, the teaching and learning process is increasingly perceived as outdated with regard to the skills and competences needed to work and live in an ever-changing world of work.

To encourage students to acquire the competencies required in the world of work, teachers must offer them opportunities that could facilitate their active involvement in instructional activities. The rigorous literature review conducted by Westbrook et al. (2013) on pedagogy, curriculum, teaching practices and teacher education in developing countries identified that student-centered learning pedagogic approaches increase students' positive outcomes. Active learning instructional strategies make the pedagogical practices of schools more effective in equipping learners with cognitive, interpersonal, interpersonal and social skills. This demands that schools have a productive teacher, a teacher with solid knowledge of the subjects and the ability to employ interactive pedagogy. Laura (2013) also argued that instructional practices that equip students with core work skills emphasize learning by doing and working in teams, thinking creatively and using authentic assessment methods.

RESEARCH METHOD

Study Design

The study investigated the pedagogical responses of schools to the skills demand of the world of work. A mixed research approach was employed with the assumption that it involves collecting, analyzing, and integrating (or mixing) quantitative and qualitative data (and research) in a single study (Onwuegbuzie & Johnson, 2006). A case study is often associated with qualitative research design. However, Yin (2003) argues that case studies can be used with both qualitative and quantitative data. A descriptive case study was selected because it allows the use of a wide range of data collection methods to gather data from the selected sites.

Participants

The study area was among African countries where the majority of young people join the world of work immediately after they graduate from secondary school. The target population of the study was employers, secondary school principals, teachers and students in Oromia, Ethiopia. Towns surrounding the Finfine and East Wollega zone of Oromia where different industries inviting secondary school graduates are available and that have limited employment opportunities were selected using a convenience sampling technique. Four schools from each study site and a total of eight secondary schools were included in the study using a convenience sampling technique. From all 164 accessible

teachers and a proportional number of students from each school, a total of 182 students were selected randomly.

Industries found in Burayu, Adam Industrial Park and Eastern Industrial Zone were selected purposely because they were among the major recipients of secondary school graduates in Oromia. Public sectors found in the East Wollega zone and towns surrounding Finfine were selected using a convenience sampling technique. Among the companies and public sectors found in the selected areas, six companies (two from each industrial zone) and six public sectors (three from each town) that had a relatively large number of employees who graduated from secondary school were purposely selected. One from each company and public sector, a total of twelve supervisors and twelve heads of human resources/general managers, respectively, were interviewed purposely.

Instruments

Interviews, questionnaires, and observations are the tools used to collect data from the different sources. Questionnaires allow researchers to secure data from many people and are selected for their natural characteristics that let informants express their ideas and opinions freely. Both open-ended and close-ended items included in the questionnaire were used to gather data from teachers and students on the purpose of secondary education and the effectiveness of pedagogical practices employed in schools. The close-ended questions were prepared on a five-level Likert-type scales ranging from strongly agree to strongly disagree (strongly agree, agree, undecided, disagree, and strongly disagree) and from never to always (never, rarely, sometimes, often and always).

A semi structured interview guide was organized around a set of open-ended questions that offer the opportunity to explore issues participants feel as important (Longhurst, 2010). The interviews were conducted with six school principals, twelve human resource managers of the public sector and twelve supervisors of the companies to understand how school leaders perceived the purpose of secondary education and to identify the skills the world of work expects from secondary school graduates. On average, interviews made with each participant took 48 minutes, and the results were recorded using notes and a tape recorder. Classroom observations were made to triangulate the data obtained through questionnaires from teachers, school leaders and students and to make valid conclusions. Sixteen classrooms were observed while teachers were teaching in different classrooms, and the data were recorded using field notes and a video recorder.

Data Analysis

The data collected from different sources were organized and analyzed under different themes created based on the specific research objectives. The quantitative data gathered through the questionnaire and analyzed using an

independent t test were used to determine the pedagogical practices of the school as perceived by teachers and students and the variations in the mean scores of the two groups. The qualitative data obtained through interviews, observations and open-ended questions were analyzed qualitatively and narrated side by side with quantitative data that had similar concerns and were triangulated as found relevant. Finally, data from questionnaires and observations were compared with the skills required by employers to show the effectiveness of the pedagogical practices of the school to prepare students for work.

RESULTS

The Purpose of Secondary Education: Educators' Perspectives

The purpose of secondary education is to prepare students both for work and for the next level of education. However, the majority of school principals in the study area believed that the goal of secondary education is mainly to prepare students for further education. For instance, one of the school directors explained the purpose of secondary education as follows:

> *The goal of secondary education is mainly to prepare students for higher education and to produce citizens who are competent at the national and international levels. To prepare students for examination and acquire the knowledge to prepare them for higher education, teachers are expected to employ a student-centered approach (Falmata, school 4 leader).*

On the same issue, another interviewee reported the following:

> *The target of our school plan and its implementation is to improve students' academic achievement, including teacher-made evaluations and national examinations. Teachers are required to meet the agreed-on benchmarks and evaluated based on their performance that are directly or indirectly referred to students result (Bilisuma, school 6 leader).*

Teachers also believed that the role of secondary school is to prepare students for the next level of education and training. The role of secondary school is to provide students with essential knowledge and skills to help them to be successful in national examinations and to prepare for higher education. Few of them mentioned university, technical and vocational college and teacher training college as examples for which secondary education prepares students. Data from the majority of the teachers also confirmed that teachers are required to provide theoretical knowledge and demonstrate instructional activities that are crucial to prepare students for further learning. That is, the intention behind teachers' efforts and activities employed inside or outside classrooms should be to prepare

students for examinations and for higher education. Students also believed that the principal role of secondary education is to prepare students for the next level of education. The study revealed that among the various destinations students would join after secondary school, the majority of them preferred to join universities. Similar to teachers' views, they believed that providing knowledge and skills help them to be successful in national examinations and effective in the next level of education is among the major responsibilities of teachers and schools. Similarly, one school principal explained the role of secondary school teacher as follows:

> *The main purpose of secondary education is to prepare students for examinations that allow them to enter university. It is also to bring holistic development to learners. The target of teachers' instruction is to equip students with theoretical knowledge and practical skills that are essential to help students effective in life and education (Gamta, school 2 leader).*

Regarding the responsibilities expected from school principals, one among the interviewees said:

> *The major goal of secondary education is to prepare students for national examinations and universities. Hence, our responsibility is to make the teaching learning processes and school environment conducive for students' maximum learning and succeed in entrance examination (Jara, school 3 leader).*

The study identified that the way most of the leaders of different schools explained the purpose of secondary education is similar. However, one of the school leaders believed that the purpose of secondary education is to encourage students to develop positive attitudes and broader perspectives and acquire the skills that are essential to live and work with others and to be effective in their future life and work (Bosona, school 1 leader). However, they had no adequate understanding of the nature of the work environment and the specific work skills employers require from employees graduating from secondary school. Reports from the Ministry of Education (examination agency) of the country indicated that some secondary school graduates were not attending higher education for different reasons. Observations revealed that the major opportunity that is open for those who do not go to higher education institutions is the world of work. However, school leaders, students and teachers took part in the study and perceived preparation for higher education as the only major purpose of secondary education. From these, it can be concluded that the world of work is not perceived as the major destination of secondary school graduates.

The Skills Demand of the World of Work

The public sector is among the destinations of students who are interested in joining the world of work immediately after graduation from secondary school. They used written examinations and interviews to select employees among applicants. The main purpose of the tools employed during screening was to evaluate applicants' awareness about the expected responsibilities assigned to the positions they were competing for, issues related to work ethics and their communication skills (oral and writing skills) (Bira, Human resource expert of public sector 3). Among the skills under question, the majority of informants mentioned teamwork, time management, independent work, self-control, ability to learn and effective communication as the skills employees must possess. In this regard, one of the interviewees reported,

> *Critical thinking, readiness and ability to learn, problem solving and decision making are the skills employees are required to demonstrate occasionally. Oral communication with customers and staff members, cooperation and work with others, work independently, time usage, self discipline and work ethics are the skills always required to effectively accomplish their responsibilities (Obse, Human resource head of public sector 1).*

Another interviewee explained,

> *To effectively demonstrate their roles, employees who graduate from high school are required to read and write (local language), independently perform activities based on the timeline of the organization, cooperate with others, solve problems related to their task and respect rule and regulation. Their positions may not frequently require them to demonstrate critical thinking skills, decision-making skills and creativity (Kuma, Human resource head of public sectors 2).*

Even though all the skills in the list are essential for public organizations, it was found that they are not equally important. Figure 1 shows the percentage of respondents who responded high or very high regarding the level of importance of the skills for employees and public sectors. Industrial parks are among organizations where many secondary school dropouts and graduates have been employed. Interviews were conducted with human resource managers and supervisors of the organizations to obtain a closer understanding of employers' perceptions about the skill demand of the world of work and to identify the gap between employers' expectations and the skills acquired by employees. Responses obtained from interviewees regarding the level of importance of the skills that are identified as essential for the benefit of employers depend on the specific industry (company) that he/she was representing. However, the results of the study showed that the skills demand of companies in Burayu, Adama

Industrial Park and the Eastern Industry Zone was similar. Regarding the skills demand, one of the interviewees said:

> *The nature of the skills our organization demands from employees depends on their responsibility. Team leaders are required to coordinate and support operators, smoothly communicate with operators, report to supervisors, solve problems, make decisions, and follow disciplinary issues. Operators are expected to use work time appropriately, cooperate and work with others, effectively communicate with team leaders and others, respect work ethics, independently mange their responsibility and show willingness to learn from others (Diba, human resource head in Adama Industrial Park, company 2).*

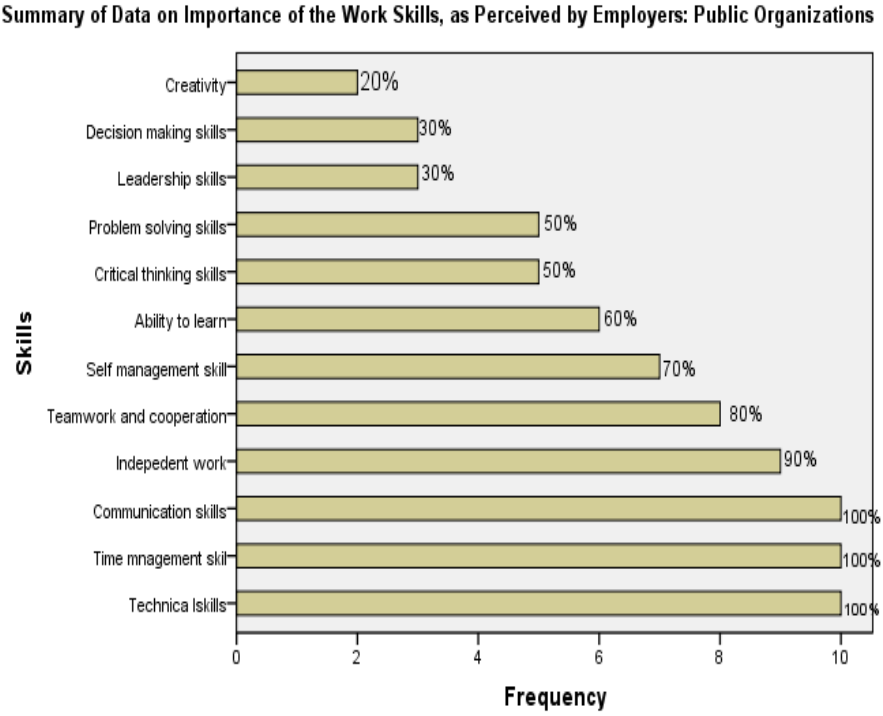

Figure 1. *The Level of Importance of Work Skills for Public Organizations*

Another interviewee explained the level of importance of the skills as follows:

> *Teamwork, communication skills, time usage, self-management (work ethics), technical skills and skills to work independently are the skills all*

operators and team leaders always need to demonstrate. Employees are required to show their commitment to solve problems, make evidence-based decisions and critically think (when needed). The nature of operators' responsibility does not require creativity and leadership skills. Leadership is additional skills team leaders expected to demonstrate (Cari, General Manager in Eastern Industrial zone, company 3).

Figure 2 shows a summary of the percentage of employers who responded very high or high to the question 'To what extent does your organization require the mentioned skills from employees?'

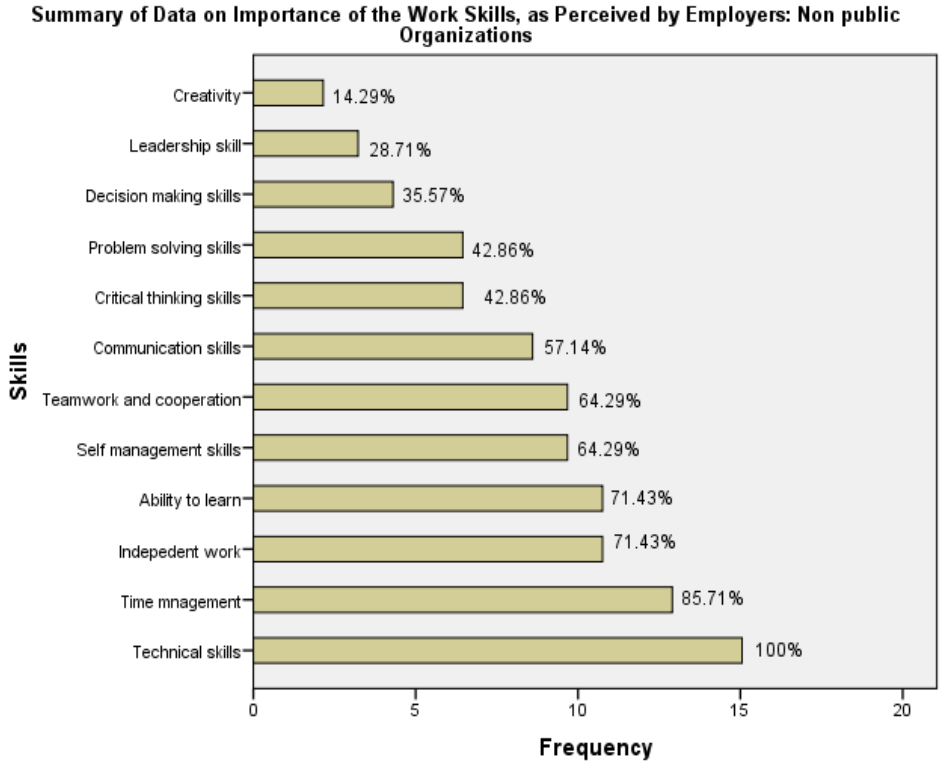

Figure 2. *The Level of Importance of Work Skills for Nonpublic Organizations*

The study revealed that the level of importance of the skills that are identified as essential for employees' survival and the benefit of organizations are not equally important for nonpublic and public sectors. Based on reports from public sectors, time management (92.85%), ability to work independently (85.17%), ability to learn and adapt (71.43%), self-management (64.29%), teamwork (64.29%), and communication skills (57.14%) are the six most important skills. On the other hand, for industries (or nonpublic sectors), the first

six ranks were taken by communication skills (100%), time management (100%), ability to work independently (90%), teamwork (80%), self-management skills (70%) and ability to learn (60%). Although technical skill was equally (100%) important for both groups, only 14.29% and 10% of respondents from nonpublic and public sectors (respectively) perceived the level of importance of creativity as high. A total of 20% - 50% of respondents perceived the level of importance of decision-making skills, problem-solving skills, critical thinking skills and leadership skills to their organizations as high.

Pedagogical practices of the schools

Cognitive, interpersonal and intrapersonal domains of competences and the specific core work skills, including critical thinking skills, creative thinking skills, decision-making skills, problem-solving skills, communication skills, leadership skills, teamwork, ability to learn, work independently and time management, were used to assess the effectiveness of pedagogical practices of the schools to prepare students for work. Table 1 presents how often teachers implemented instructional activities that are expected to encourage students to develop core work skills.

Table 1: Instructional Activity Intended to Teach Independent Learning and Practical Skills

No	How often teachers:	*M*(T)	*M*(S)	*Agg. M*	*t*	*p*
1	employ interactive instructional strategies in teaching the lessons	3.28	2.92	3.07	1.68	.096
2	use the majority of the instructional time to lecture a lesson	3.67	3.42	3.55	3.10	.003
3	invite students to do project work or laboratory experiment when needed	2.21	1.64	1.92	4.55	.001
4	order students to write & submit laboratory/project work reports	2.26	1.79	2.00	1.82	.071
5	arrange study trip to help students visit industries or historical areas	1.97	1.50	1.71	2.21	.027

Note. Expected mean = 3.00, $p < .05$

To encourage students to develop transversal competencies and the work skills, teachers are expected to integrate these skills into classroom instructions and are required to change their role from being transmitters of knowledge to facilitators of student learning. However, as seen from Table 1, the study depicted that teachers occasionally employed active learning strategies in teaching the lessons (3.07). It was also identified that the majority of the instructional time was used to lecture classes (3.55). Similarly, the extent to

which teachers invited students to perform experiments and/or project work, report laboratory and project results and arrange study trips so that students obtain first-hand experience was very low (1.92, 2.00, 1.71). From these results, one can conclude that the instructional activities employed in the schools did not encourage students to do tasks independently and develop technical skills that are essential to be effective in the world of work. In active learning classrooms, teaching cannot be viewed as the process of transmission of knowledge, and teachers are not monologue actors who teach completely new lessons. Rather, they serve as coaches providing assistance and guidance in the students' efforts at constructing their learning. However, in most of the classrooms where observations were conducted, students were passive audiences and the pedagogical activities employed in the schools were not focused on pedagogical activities that are relevant to equipping them with the skills required in the world of work.

Table 2: Implementation of Instructional Activities intended to teach Cognitive, Interpersonal and Intrapersonal Skills

No	How often teachers:	*M*(T)	*M*(S)	*Agg. M*	*t*	*p*
1	ask students to do activities that demand to analyze & evaluate data	2.90	2.61	2.75	3.30	.001
2	encourage students to solve problems	3.32	3.10	3.21	1.06	.342
3	provide activities that demand students to generate & test out ideas	2.95	2.61	2.78	4.66	.001
4	ask students make decisions & explain the rationale behind their decisions	.90	2.58	2.74	3.23	.003
5	encourage students to draw their own conclusions	2.78	2.56	2.67	3.43	.011
6	arrange group discussion	3.32	3.07	3.18	1.18	.252
7	give students different responsibilities during group discussion	2.91	2.74	2.82	2.18	.031
8	encourage students to prepare & deliver presentation in the classroom	2.89	2.52	2.70	3.31	.001
9	arrange debate at classroom level	2.53	2.07	2.27	2.07	.040
10	give students activities to be done individually	3.10	2.75	2.92	2.51	.001
11	give students chance to provide feedback to other students' work	2.87	2.25	2.53	3.02	.003
12	give students tasks to be completed using the given time & criteria	3.36	3.23	3.29	.63	.538

Note. Expected mean =3.00, $p < .05$

As indicated in Table 2, the mean score for items representing instructional activities employed to promote higher-order cognitive skills was below average. That is, the mean scores for critical thinking skills, creativity, and decision-making skills were 2.75, 2.78 and 2.70, respectively. However, the implementation of activities employed to encourage problem-solving skills was slightly above average (3.21). Except for problem-solving skills ($t(344) = 1.06$, $p = .342$), the independent t test result indicated that the mean difference between teachers and students was statistically significant for all items representing cognitive skills ($p < .05$). However, both groups agreed that the pedagogical practices of the schools did not encourage students to develop cognitive work skills to the expected level.

The study revealed that the extent to which teachers arranged small group discussions during instruction was average (3.18). However, the instructional activities employed in the schools did not encourage students to develop the ability to prepare and deliver oral presentations, prepare students for different responsibilities and communicate effectively and were below the expected level (2.70, 2.82, 2.27). The independent test indicated that there was a statistically significant difference between the mean score for the two groups ($p < .05$), excluding the mean scores for the item representing arrangement for group discussion ($t(344) = 1.18$, $p = .252$). However, the results of the study showed that pedagogical strategies employed in the schools did not support students in developing the interpersonal skills expected from secondary school graduates.

The mean score for items representing pedagogical activities supposed to support students in developing the skills to evaluate others' work and give feedback and self-control skills was below the expected mean value. On the other hand, it was found that the status of pedagogical practices of the schools to encourage students to complete tasks independently and within the given time were medium. Except for time management ($t(344) = .63$, $p = .538$), the result for the independent t test showed that the mean difference for teachers and students was statistically significant ($p < .05$). However, both groups agreed that the instructional practices of the schools did not allow students to develop intrapersonal skills that the work environments require from employees. From the classroom observations made to identify if the schools were using instructional strategies that encourage students to develop their work skills, it was learned that students were not offered the opportunity to take part in learning tasks that will help them to develop the skills required from the 21st century workforce, such as problem-solving, critical thinking, self-guided learning, communication, teamwork and intrapersonal skills.

DISCUSSION AND CONCLUSIONS

Secondary education in most African countries offers learners the opportunity to develop competencies, skills and attitudes that enable them to develop job-oriented skills and continue learning. However, the study revealed that school leaders and teachers believed preparation for national examination (and/or for higher education) as the major purpose of secondary education. None of them mentioned preparation for the world of work as the major purpose of secondary education. Consistent with this finding, the research conducted by Sifuna and Sawamura (2010) indicated that the results of national examinations were used to assess the efficiency of secondary schools. Based on the results of the study, it is possible to conclude that school leaders and teachers did not consider preparation for work as part of teachers' instructional responsibilities. Similarly, students were not conscious about their destinations after secondary school other than higher education institutions.

Employment requirement and selection procedure manufacturing industries employed to cheek if the applicants were acquired the basic skills were not uniform. However, the fundamental and common criteria used to select employees for the different companies are related to communication skills, time management, teamwork, work ethics and readiness to learn. Public organizations used written examinations and interviews to measure applicants' communication skills (oral and writing skills), ethical issues, work habits and understanding of the responsibilities the positions require from employees. Consistent with this finding, the research conducted by Suarta et al. (2017) identified that communication skills, problem-solving and decision-making skills, tolerance, creativity, willingness to learn, adaptability and teamwork are the skills required by graduates in entering the workforce.

Manufacturing industries required time management, work independently, ability and readiness to learn, collaboration, self-management (work ethics, self-discipline) and communication skills as the top six skills employees must demonstrate to survive in the organizations. This finding is consistent with the study conducted by Burrus et al. (2013), which indicated problem solving, teamwork and cooperation and communication as the most important skills and competencies for the workforce. It was also disclosed that problem-solving, decision-making, and critical thinking skills took the middle position in the rank of the skills demand of the employers. This shows that time management (usage), ability to work independently, and ability and readiness to learn are the most essential work skills. In addition, workplaces are becoming more team oriented and demand collaboration and communication skills. Leadership skill is required for line/team leaders who are assigned to coordinate, supervise and support operators. They are also expected to make decisions and solve minor problems expected to happen at the operation level. Since their

responsibilities require repeating the same procedure, creativity is not expected from operators. Although few companies have used basic technical skills as selection criteria for applicants, all employers require job-specific technical skills as a minimum requirement to stay as an employee in organizations.

The study revealed that communication skills, teamwork and cooperation, work independently, time management and self-management (self-discipline) skills are the most critical skills the public sector demands from applicants and novice employees. Consistent with this, Burnett and Jayaram (2013) identified that in Africa, in addition to technical and basic cognitive skills, transferrable skills, such as punctuality, communication, flexibility, and problem solving skills, are extremely important in the workplace. Problem-solving skills, readiness to learn, and critical thinking skills took the middle position in the list of the skills. Employees are required to demonstrate creativity, decision-making skills and leadership skills when need arises. Although employees are required to possess practical skills, there is no complex and difficult technical skill they need to implement. Hence, appropriate use of work time, effective communication, work independently and team spirit and collaboration are the most critical skills for employees in public organizations.

Although the rank given to each skill was not identical, among the skills under investigation, most employers shared the idea that time management (time usage), ability to work independently, ability to learn and adapt, self-control (self-management), teamwork, and communication are the skills the organizations demanded from employees graduated from secondary schools. A study conducted to compare the skill demand of employers in three African countries also showed that self-management, teamwork, ability to learn, ability to work independently, and problem solving were the most essential skills for employees graduating from secondary education (World Bank, 2017). The study identified that the middle positions (rank from number 7 to 9) are taken by critical thinking skills, decision-making skills, and problem-solving skills (respectively). Creativity took the last (end) position in the list of the skills required in public organizations. In addition to the mentioned skills, team/line leaders are required to demonstrate leadership skills. In industries, operators are required to demonstrate technical skills.

Among the mentioned skills, effective communication, self-management (work ethics), appropriate use of work time, independent work, ability to work with others, ability to smoothly solve problems and ability to learn (adapt) are the areas of skills some of the employees faced difficulty demonstrating effectively during the first month of their employment. Similarly, the study conducted by Dench et al. (1998) identified that employers were slightly less satisfied with workers' oral communication, teamwork, and learning skills. Few operators

promoted to team/line leader positions faced challenges in exercising their responsibilities related to decision-making and problem-solving skills.

The instruction that is derived from a mix of constructivist approaches promotes participatory, more interactive, discover-oriented pedagogy and cooperative learning. In relation to this, it was found that interactive instructional strategies were not demonstrated to the level required to encourage students to develop the required work skills. Teachers used most of the instructional time to present the lessons, and students passively attended teachers' lectures throughout most of the lessons. Sifuna and Sawamura (2010) also identified that the main teaching strategy that characterizes secondary school teaching is the large amount of teachers' talk, which involves mainly the teacher presenting to the students, intersperse with questions asked to the whole class, with predetermined answers. A teacher-centered approach that does not encourage students to develop the skills that prepare them for work, including the ability to independently complete tasks, solve problems and work with others with minimum support, is the instructional method frequently employed in schools.

When students work cooperatively together, they learn to give and receive help, share ideas and listen to other students' perspectives, and seek new ways of clarifying differences and resolving problems (Gillies, 2016). However, the findings of the study showed that there was no strong evidence that the pedagogical activities delivered in the classrooms strengthen students' active participation. Consistent with this finding, it was identified that the teaching practices in Eastern European countries were largely traditional and centered around the teacher (e.g., delivering a lecture to the whole class) (OECD, 2021). In addition, the classrooms and instructional activities were not organized in ways that allowed students to develop skills to help them work together with others and actively engage in learning activities. The results also indicated that a cooperative learning strategy that encourages students to develop critical thinking skills, teamwork and cooperation, time management, self-control, and leadership skills was not implemented to the level that it prepares students for the world of work.

When students work collaboratively, there is an expectation that each student contributes equally and is assigned to specific roles within their groups. The primary reason for assigning roles is to ensure that no group member dominates the group or contributes nothing (Yager, 199, as cited in Kim, 2005). Conversely, the results of the study revealed that students were rarely assigned different responsibilities during discussions in small groups. Collaborative interactions include taking on leadership roles, making decisions, building trust, communicating, reflecting, and managing groups (Carpenter & Pease, 2013). In the classroom where cooperative learning was evident, one or two students in each group were trying to deal with the provided learning tasks and share their

understandings to the group members and to the whole class. In addition, teachers did not arrange different stages at the classroom or school level so that students developed work skills, including analytical skills, oral communication, social-interaction, the ability to synthesize arguments, the ability to speak impromptu, and the ability to make informed decisions and judgments that are expected to be achieved through debate and oral presentations. This implies that the instructional approaches used in the majority of the classrooms did not invite students to prepare for different life and work responsibilities.

The results of the study indicated that the intention to promote skills to solve problems was encouraging. However, it was learned from the classroom instructions that the intention of the problems students required to solve does not require higher-order cognitive skills. Instead of providing further guiding questions that foster critical thinking skills and push students to give answers by themselves, most teachers tried to give answers to students' questions. Instead of devising alternative techniques to search for solutions and cooperate with others to find answers through discussion, most students wait for teachers to provide answers. Similarly, the study conducted by Kurniawati et al. (2016) found that the critical thinking skills of public senior high school students are still not well developed and even need to be improved. It was also disclosed that students were not provided with tasks that demanded they analyze, synthesize and evaluate information and help them to obtain the opportunity to develop critical thinking skills and problem-solving skills that are required in the world of work. Unless teachers encourage students and provide them with activities that force them to deal with problems that demand cognitive processes, they will not develop the skills to help them look for alternative solutions to a problem. Conversely, the actual classroom practices did not encourage students to develop the skills that employees need to solve problems they will face in their work environments.

Critical thinking skills, well-developed problem-solving skills, the ability to identify the problem and the ability to seek different alternative solutions are the key prerequisites for decision-making skills. Although students were asked to select from alternatives in different forms (to make decisions), the results revealed that the instructional activities employed in the classrooms rarely invited students to make decisions that required critical thinking skills, problem-solving skills and justification for their choices. Alismail and McGuire (2015) suggested a problem-based learning strategy to develop the ability to identify, analyze and define problems, to know and apply strategies for dealing with unfamiliar problems, to generate, analyze and select problem-solving strategies and to make justifiable decisions. However, the instructional activities employed in the schools did not invite students to generate ideas, test out ideas and invent a solution to a problem. From these findings, it is concluded that school pedagogical practices did not support students in developing higher-order cognitive skills that are essential to prepare for the world of work.

Instructional activities that are responsive to the world of work require teachers to encourage students to develop the ability to learn independently throughout their life, the ability to solve problems, acquire core academic knowledge, and facilitate the development of higher-order thinking skills. Although the study confirmed that teachers tried to encourage students to complete tasks individually, the tasks focused on theoretical concepts that do not require students to use inquiry skills and skills that are vital in the world of work. Similarly, previous study conducted by Tate and Swords (2013) demonstrated that high school learning focused on memorizing and understanding concepts. As a result, many first-year students in the United Kingdom experience 'a skills gap' in the transition to university. It is also identified that for most teachers, independent learning is merely students working alone. The important roles teachers play in supporting and enabling students' independent learning were not considered. This might be due to misconceptions with the teachers' understanding of the concept of independent learning.

Inquiry-based practical work requires students to think of problems, formulate hypotheses and observations and draw conclusions from scientific phenomena and requires purposeful observations or scientific inquires by manipulating equipment and materials (Hofstein, 2017; Lederman & Lederman, 2012). There are a considerable number of project works and experiments in high school science textbooks. However, observations revealed that neither of them was implemented in the schools for different reasons. Lack of laboratory room, chemicals, apparatuses and laboratory technicians were among the factors that hindered the implementation of experiments listed in the textbooks. Consistent with this result, Boyuk et al. (2010) identified that the lack of materials needed for the required laboratory work is vital for experiments and that insufficient information for carrying out the experiment is a problem teachers encountered in conducting laboratory work. In the absence of real engagement in project work and laboratory experiments, it is unusual to expect written or oral reports from students. As a result, it is concluded that the schools weren't encouraging students to develop critical thinking skills, problem-solving skills, working with others, practical skills and the ability to prepare and deliver oral and written reports expected to be acquired through project work and experiments.

Selective observation, which is supported by experts' explanations, encourages students to develop work habits, positive attitudes toward work, connect theory to practice, and the ability to analyze, synthesize and summarize information and reflect on their observations. There are industries and historical areas that are conducive for students to gain direct experience. However, the results of the study showed that the opportunity to acquire the work skills and work habits and attitudes that are required in the world of work and expected to be achieved through study trips was totally denied. Students were not given the chance to visit any relevant location (industry or historical places). This finding

is directly in line with a previous study conducted by Behrendt and Franklin (2014), which stated that field trips have become less common due to limited funding and limited available time.

Hard-working, the ability to complete tasks in time and consistency are the characteristics of people with well-developed self-discipline. People with low self-discipline create behavioral problems that disrupt the learning and working environment and limit individual performance. Unlike the efforts made to help students develop time management skills, the study found that the instructional activities delivered to help students learn and develop self-control skills were not encouraging. Moreover, the instructional strategies employed in the classrooms did not allow them to be more responsible for their actions, encourage a reflexive approach to learning, involve learners in judging their performance or that of their peers, develop and use of evaluative expertise, and provide, seek and utilize feedback. In summary, the instructional activities employed in the classrooms were not sufficient to equip students with the skills secondary school graduates required to become effective in the world of work. As a result, it is concluded that the major intention of the pedagogical practices observed in the schools was not to prepare students for work.

Conclusions

The current study showed that school leaders and teachers perceived preparation for national examination and higher education as the major goal of secondary education. They associated students' success and schools' effectiveness with students' national examination results, which determine the success of joining higher education institutions. They weren't conscious about the other half part mission of secondary education: preparation for the world of work. It was also realized that teachers and school leaders were not aware of the different destinations students would join after secondary education other than the next level of education. Although experts mentioned some of the skills required in the world of work as they are essential for students' future careers, they had no clear idea about the importance of the skills to the world of work. Consequently, it is concluded that key stakeholders had no clear understanding of the entire purpose of secondary education.

The results of the study revealed that almost all of the key competencies and skills indicated in different documents as important for students' future life, education and work are recognized as essential in public sectors and nonpublic organizations and for employees who graduated from secondary schools. Among these, communication skills, teamwork and cooperation, time management skills, work independently, self-management and ability and readiness to learn are the skills that are vital for employees to survive in different organizations. In addition to the mentioned skills, problem-solving, decision-making, and critical thinking are the skills team/line leaders need to effectively demonstrate their

responsibilities. Training was provided to equip novice employees with technical skills. However, employees faced difficulty learning and adapting to technical skills because they had no relevant basic skills or experience they acquired at the high school level. Moreover, it was confirmed that the majority of beginner employees faced difficulty effectively communicating, cooperating and working with others, learning and adapting to the job and work environment, effectively using work time and solving problems independently. Consequently, employers concluded that secondary education had not been equipping students with the skills of the world of work demand from employees.

The emphasis given to preparation for work and for higher education in secondary school instructional activities was not equal. It was confirmed that the instruction was mainly intended to equip students with knowledge that helps students to be successful in national examinations and to join universities. Similarly, the room provided for theoretical knowledge and practical skills and the behaviors and skills that are essential in the world of work is not balanced; it is theory-oriented instruction. It was found that teacher-centered instructional strategies that have no significant role in encouraging students to develop work skills were the dominant approach employed in the schools. Most of the instructional time was used to lecture the class, and the teachers dominated the instructional activities. In addition, the instructional activities employed in the schools did not encourage students to develop the skills and attitudes that are essential to prepare them for the world of work. Hence, it is possible to infer that secondary school pedagogical practices of the schools were less relevant to prepare students for work.

IMPLICATIONS

School leaders and teachers are advised to have an adequate understanding of the whole purpose of secondary education and the alternative destinations of students after secondary education/school and to be familiarized with the work skills students need for work. Identifying potential employers and addressing their demand are among the suggestions that are essential to enable teachers to design instruction that prepares students for work. They are also recommended to have not only a clear understanding of the goal of education and subject matter knowledge but also to possess adequate knowledge and skills that are essential to deliver lessons that are responsive to the demands of the world of work.

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