Perceptions of secondary school teachers and learners on the implementation of practical skills for the realization of Vision 2025 in Kilimanjaro Region, Tanzania

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Abstract: *Vision 2025 recommends that education should lead to high quality livelihood for all Tanzanians through strategies which ensure attainment of a level of tertiary education, hard work and creativity through implementation of practical skills among learners. Perceptions of teachers and learners on the implementation of practical skills for the realization of Vision 2025 among secondary school learners have not been documented in Kilimanjaro Region. Thus the aim of undertaking this study was to document this study and also find out how these perceptions affect the implementation of practical skills for the realization of Vision 2025.This paper addresses one of the research questions that is: What are the perceptions of secondary school teachers and learners on the implementation of practical skills for the realization of Vision 2025 in Kilimanjaro Region, Tanzania? This study used convergent mixed methods design which is a concurrent design where qualitative data and quantitative data sets are collected together. The target population was 5278 people including DEOs, secondary school teachers, heads of schools, academic masters and Form four learners of government and secondary schools of three district councils. Probability and non probability sampling were used. Data were collected through questionnaires, interview guide, document analysis schedule and observation schedule. The findings indicated positive perceptions of both teachers and learners towards implementation of practical skills for the realization of Vision 2025.In conclusion this implied that Vision 2025 could be realized through secondary education by learners acquiring practical skills which help them improve their livelihood. The researcher recommended practical skills to be developed to A level, Tertiary and University level. Further study could be done on evaluation of community's perceptions towards developing practical skills among learners for the realization of Vision 2025.*

Key words*: Implementation, Practical Skills, Perception, Vision.*

Introduction

The Vision 2025 which was launched in 2000 has three pillars namely, high quality livelihood for all Tanzanians; good governance and rule of law; a strong and competitive economy (Planning Commission ,2000). Vision 2025 recommends that education should lead to high quality livelihood for all Tanzanians; developmental mind set and empowering culture ; development of oriented culture, hard work and creativity, education as a strategic change agent, promotion of science and technology education, promotion of information and communication technologies(Planning Commission,2000). In this study the focus was on one of the Vision 2025 objectives which is high quality livelihood for all Tanzanians expected to be attained through strategies which ensure the attainment of a level of tertiary education, hard work, and creativity through implementation of practical skills among learners for the realization of Vision 2025.These were to be achieved through education by focusing on specific subjects.

Vision 2025 targeted subjects such as agriculture, business, ICT, together with STEM subjects namely science, technology, engineering and mathematics. The Ministry of Education ,Science and Technology (MoEST) has identified these subjects and teachers are being trained in these subjects in ear marked science colleges and universities. These subjects are also stipulated in the reviewed curriculum (TIE,2013). These subjects are taught in some schools as optional and in some schools as core subjects. The question is that what are the perceptions of teachers and learners on implementation of practical skills for the realization of Vision 2025 for the targeted subjects? This question was addressed in the findings of this study.

Implementation of practical skills among secondary school learners has been a great concern to educationists. For example, Nyerere's idea of Education for Self Reliance (1967) emphasized integrating theory and practical skill activities. The secondary school curriculum was revised by TIE,(2013) to be in line with the expectation of Vision 2025 which emphasizes strategies such as demonstrating practical activities, developing practical projects for learners, integrating ICT with teaching and learning , organizing field trips and practical skill activities such as farming, livestock keeping, making bricks and building houses, masonry, electrical installation and carpentry. What is not known is whether teachers and learners are prepared for these practical skills. What are the perceptions of teachers and learners towards implementation of practical skills among learners? This study therefore focused on the perceptions of both teachers and learners on implementation of practical skills for the realization of Vision 2025. The government developed education programmes through MoEVT (2010) such as Secondary Education Development Programme ,SEDP1(2004-2009) and SEDP 11(2010-2014) which emphasized technical education, ICT application and promotion of skills development. Education training policies were also formulated such as ETP, 1995 (MoEC, 1995) which emphasized learners to learn technical skills and vocational skills. All these developments have been geared to implementation of practical skills among secondary school learners in order that Vision 2025 can be realized. But what are the teachers and learners perceptions on these developments? Are teachers eager to teach and receive the developments positively or not? If yes, then implementation of practical skills for the realization of Vision 2025 will be effective. But if the teachers and learners have negative perceptions on these developments, implementation of practical skills for the realization of Vision 2025 will not be possible. These concerns are in line with the theory guiding the study (ORC). Do learners perceive that they are adequately prepared in practical skills for employment opportunities? These concerns were addressed in the findings of this study.

Statement of the Problem

Since Vision 2025 was launched in 2000, many curriculum innovations have been put in place. Yet, stakeholders, education officers, teachers ,learners and parents are still concerned with ordinary secondary education in leading to the realization of the Vision 2025.Practical subjects have been introduced and made compulsory to ensure learners left secondary schools with practical skills. What is not known is whether the teachers have been trained on teaching these practical skills among learners and if they have been dully, trained it is important to find out if they are actually teaching as recommended. Few research studies have been done on perceptions of teachers on the implementation of practical skills among learners such as Gamze *et al.* (2017) Turkey; Oloyede and Sihlongonyane (2017) Swaziland; Mwalongo (2011) Tanzania and Mfaume et al. (2019) Tanzania. These studies have examined perceptions of teachers and learners in implementing practical skills in general in different countries . Few studies have dealt with teachers and learners perceptions in particular reference to Vision 2025. No known particular study has dealt with perceptions of teachers in implementing practical skills for the realization of Vision 2025 among secondary school learners in Kilimanjaro, Region Tanzania. Also up to now, we do not have proper documentation to see whether we are moving towards the attainment of Vision 2025 through secondary education. Therefore, the purpose of this study was to document the findings of this study and find out the perceptions of teachers and learners in the implementation of practical skills for the realization of Vision 2025 in Kilimanjaro Region, Tanzania.

Research Question

The study was guided by the following research question:

What are the perceptions of ordinary level secondary school teachers and learners on the implementation of practical skills for the realization of Vision 2025 in Kilimanjaro Region, Tanzania?

Hypothesis

There is a significant relationship between rate mean scores of teachers' perceptions and implementation of practical skills for the realization of Vision 2025 among ordinary level secondary school learners in Kilimanjaro Region.

Theoretical Framework

This study was guided by the Theory of Overcoming Resistance to Change (ORC) by Coch and French (1948) who suggested that change can be directed, managed and controlled. The model assumes that success or failure of curriculum implementation is dependent on how the curriculum developer influences the curriculum, the teachers, the students and the public because they are the ones who may resist change at the time of introduction of a new programme. In effect the model advocates for identification and effectively dealing with the concerns of the teachers during implementation process (Coch & French, 1948).

If we desire change then we must address people's misgivings, their misapprehensions, or other such related factors. To get the desired result curriculum developers should identify and deal with the concerns of the staff in various educational institutions when implementing new curriculum (Coch &French, 1948). At normal circumstances, people want to change but at the same time have certain concerns. This creates some resistance at the outset. Success or failure of implementation of practical skills then would depend on whether or not a teacher overcomes the resistance (Ahmed, 2014).The concerns are classified into four categories. They are insignificant concerns; personal concerns; task-related concerns; and impact-related concerns.

Unrelated /insignificant concerns-Teachers do not perceive the suggested changes as related to them and so do not feel that they should concern themselves with the efforts to change.

Personal concerns-Teachers react to innovations in relation to their situation. How well each one feels he /she could deal with the new changes

Task- related Concerns-Teacher is concerned about the actual use of innovation in the classroom-issues of materials and strategies for implementation.

Impact related concerns - Teacher is concerned about the effect of the innovation on the learners, colleagues and community. Curriculum planners can deal with these concerns better if they involve those in the implementation right away i.e at the planning stage. They can then discuss how these concerns can be addressed (Ahmed, 2014).

If teachers and learners perceptions are positive towards implementing practical skills for Vision 2025, then teaching learners practical skills could be effective in producing learners equipped with practical skills. Positive perceptions could enable teachers get good support from Heads of schools which could in turn make teachers implement the curriculum effectively and be able to achieve the objectives of Vision 2025 and consequently enabling learners to acquire practical skills for employment opportunities. But if teachers and learners would have negative perceptions on the implementation of practical skills among learners, personal concerns (ORC), Vision 2025 would not be achieved. The curriculum would not achieve its objectives unless teachers who put the curriculum into practice fulfilled their tasks (Gurol, 2004).

Literature Review

Researchers, such as Gamze *et al.* (2017) conducted a study on, 'Teachers' perception: Competent or Not in Curriculum Development in Turkey'. The results of their study showed that teachers often perceived themselves incompetent on curriculum development but teachers in the present study felt competent with the reviewed curriculum,(TIE ,2013).

Similarly, Ramnarain (2014) conducted a study on Teachers' perceptions of inquiry –based learning in urban, sub urban, township and rural high schools: The context specificity of science curriculum implementation in South Africa. The study investigated the perception of physical sciences (physics and Chemistry) teachers on the implementation of inquiry-based learning at a diversity of high schools in South Africa. The aim of the study was to explore teachers perceptions of physical sciences from diverse school settings on these benefits: learner autonomy and teacher competence in that a teacher has to have a deep understanding of the scientific process. The study dealt with physical science teachers' perceptions on inquiry based learning and not with particular reference to Vision 2025; whereas the present study dealt with practical oriented subjects other than the physical sciences such as agriculture and with particular reference to Vision 2025.

Referring to Oloyede and Sihlongonyane (2017) Swaziland, on their study on Perception of Teachers on Psychosocial life skills, the teacher's perception towards psychosocial skills was positive. The study revealed that life skills promoted by the siSwat Curriculum are mostly cognitive life skills which are decision making, problem solving and critical thinking which helped the learners to perform well academically (Oloyede & Sihlongonyane,2017). The researchers concentrated only on cognitive life skills and neglected the psychomotor skills developed from practical skill activities such as carpentry which are also important in enhancing practical skills. This study investigated the practical skills both cognitive and psychomotor skills developed among secondary school learners in Kilimanjaro Region.

Referring to Mfaume *et al.*(2019) study on,' Harnessing the Power of a Mobile Phone in the Promotion of Teacher Ethics in Tanzania', the researchers also commented that regardless of the

limitation of ICT, it was beneficial to the education system by providing quality education. Information Communication Technology identified the need to integrate teaching and learning using contemporary pedagogical approaches (Mfaume *et al.* 2019). The researchers too recommended that there had to be development of locally produced, contextually relevant course for both instructors and learners (Mfaume *et al*.2019).The researchers focused on one ICT tool , mobile phone and did not specify its limitations such as cost of maintaining a mobile phone in teaching and power cuts especially in the rural areas of Tanzania. The current study focused in general on integration of ICT in teaching and learning process as a strategy for implementation of practical skills for the realization of Vision 2025 and also the study investigated its challenges.

Mwalongo (2011) did a study on Teachers Perceptions about ICT for teaching, Professional Development, Administration and Personal Use in Dar es Salaam, Tanzania. The study revealed that many teachers 61.6 percent acknowledged the use of ICT in teaching and learning. The researcher did not say what should be done to teachers who did not acknowledge the use of ICT and why they did so. For the present study, the findings showed that all teachers integrated ICT with teaching and learning process.

Similarly, Kinyaduka (2014) conducted a study on, 'Tanzania secondary schools Curriculum and the World of Work: Dodoma Municipality Student and Teacher Perceptions.' The study examined whether teachers and learners preferred comprehensive or general education curriculum and whether the curriculum prepared graduates for the world of work, Kinyaduka (2014).The study found that 100 percent of teachers and learners respondents preferred the comprehensive curriculum which requires learner centered techniques which engage learners in practical activities and hence forth acquire skills for the labour market, Kinyaduka (2014).But Kinyadukka(2014) did not relate the perception of teachers and learners with particular reference to Vision 2025.However, the findings of the present study revealed that secondary school teachers and learners had positive perceptions on the implementation of practical skills for the realization of Vision 2025.

Research Gap

Few research studies were reviewed from different parts of the world on perceptions of teachers and learners on the implementation of practical skills among learners such as Gamze, et al (2017), Turkey; Oloyede and Sihlongonyane (2017),Swaziland; Mwalongo (2011), Tanzania; Mfaume et al. (2019),Tanzania.

These studies examined perceptions of teachers and learners on the implementation of practical skills in general and not with particular reference to Vision 2025. No known research study has dealt with perceptions of teachers and learners on the implementation of practical skills among secondary school learners in Kilimanjaro Region, Tanzania. Also there is no proper documentation to see whether we are moving towards the attainment of Vision 2025 through secondary education. Therefore the purpose of the study was to document the findings of this study and to investigated teachers and learners' perceptions on the implementation of practical skills for the realization of Vision 2025, among secondary school learners in Kilimanjaro Region Tanzania.

Research Design and Methodology

This study used Convergent Mixed Methods Design (Creswell & Creswell, 2018) which is a concurrent design where Qualitative and Quantitative data sets are collected together in a single phase and then analyzed. The findings are merged and interpreted to compare quantitative and qualitative data to see whether they conform or not. Mixed research methods provide richer insights into phenomena of interest that cannot be fully understood using only quantitative or qualitative methods (Johnson *et al*. 2007). The researcher used this design in order to build on the strengths of both quantitative and qualitative data and produce enough information for extending and elaborating the problem of the study (Creswell & Clark, 2018).

Quantitative data were collected through questionnaires and document analysis schedule and then were coded , entered into the computer and analyzed using SPSS version 23 into descriptive and inferential statistics. Descriptive data such as mean, mode and median
were analyzed into frequencies and percentages and then presented into tables and graphs. Inferential statistics such as Regression were analyzed into Mean and SD and used for testing hypothesis .The qualitative information was coded into themes, descriptively analyzed and major summaries were reported together with some direct quotations and narrations. Then the researcher combined the two data by form of integration.

The target population was 5278 people including DEOs, secondary school teachers, heads of schools, academic masters, and Form four learners of all government and private ordinary level secondary schools in the 3 District councils in Kilimanjaro region. Then the researcher sampled 11government and private ordinary level secondary schools from the 3 sampled District Councils so as to obtain a representative sample for the whole population. A representative sample of 3 DEOs,11 heads of schools, 11 academic masters, 110 secondary school teachers, and 396 Form four learners totaling to 531 participants was used in collecting data

Results and discussion

Perceptions of secondary school teachers and learners on the implementation of practical skill activities for the realization of Vision 2025

Perceptions are views of teachers and learners on the implementation of practical skills among secondary school learners. In this paper the researcher was interested to find out how teachers and learners perceived the implementation of practical skill activities for the realization of Vision 2025. Teachers are the prime implementers of the curriculum and their knowledge and attitudes determine its success. Teachers and learners were in a good position to evaluate the pace of implementing practical skill activities in the secondary schools because they were directly involved in the practice. Thus they could give true and reliable opinions about the implementation of practical skill activities in their respective schools. For example how did the teachers understand the pace of implementing the practical skill activities such as farming, making bricks and using computers in their respective secondary schools? Therefore, the researcher was interested in getting information from teachers on how they perceived the implementation of practical skill activities for the realization of Vision 2025 in their respective schools. The responses are summarized in table 1.

Table1: Perceptions of teachers on implementation of practical skill activities for the realization of Vision 2025 (n=110)

	Very Slow		Slow		Moderate		Fast		Very fast		Descriptive statistics	
Practical skill activities	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**f**	**%**	**Mean**	**Standard deviation**
Farming	0	0.0	0	0.0	19	17.4	44	40.4	46	42.2	4.25	0.735
Live stock keeping	0	0.0	7	6.4	21	19.3	51	46.8	30	27.5	3.95	0.854
Making bricks	7	6.7	3	2.9	36	34.3	26	24.8	33	31.4	3.71	1.141
House building	2	1.9	5	4.6	36	33.3	36	33.3	29	26.9	3.79	0.958
Cookery	3	2.9	6	5.8	29	27.9	31	29.8	35	33.7	3.86	1.047
Laundry	1	1.0	8	7.6	33	31.4	41	39.0	22	21.0	3.71	0.917
Carpentry	2	1.9	2	1.9	23	21.7	41	38.7	38	35.8	4.05	0.909
Field trips	11	12.4	13	14.6	18	20.2	18	20.2	29	32.6	3.46	1.399
Managing a school shop	4	3.7	6	5.6	31	29.0	42	39.3	24	22.4	3.71	1.000
Vegetable gardening	5	4.6	15	13.8	23	21.1	39	35.8	27	24.8	3.62	1.137
Using computer for searching information	0	0.0	17	15.9	14	13.1	26	24.3	50	46.7	4.02	1.116
Ability to present topic in front of class	0	0.0	17	15.9	13	12.1	24	22.4	53	49.5	4.06	1.123
Art and Craft	0	0.0	6	5.5	20	18.3	33	30.3	50	45.9	4.17	0.918
Creativity and reasoning	1	0.9	10	9.2	10	9.2	41	37.6	47	43.1	4.13	0.982
Participating in sport and games	0	0.0	4	3.7	11	10.1	48	44.0	46	42.2	4.25	0.784
Participation in decision in making	0	0.0	6	5.6	11	10.2	50	46.3	41	38.0	4.17	0.826
Fine Art activity	0	0.0	5	4.6	21	19.3	35	32.1	48	44.0	4.16	0.894
Music activity	1	0.9	5	4.6	27	24.8	37	33.9	39	35.8	3.99	0.938
Drama activity	1	1.1	5	5.6	24	27.0	46	51.7	13	14.6	3.73	0.822

Source: Field data, 2020

The researcher in question three sought to find out how teachers and learners perceived the implementation of practical skills for realization of Vision 2025.Table 1 shows the perceptions of teachers on the implementation of practical skill activities focused in study table 1.From table 1 majority of teachers' responses on how fast implementation of practical skill activities was in schools, ranged from moderate to very fast, meaning that all the practical skill activities such as farming and others were very fast being implemented in schools. This is contrary to Lupeja,(2017) who asserted that secondary school learners preferred non- farm activities than farm activities.

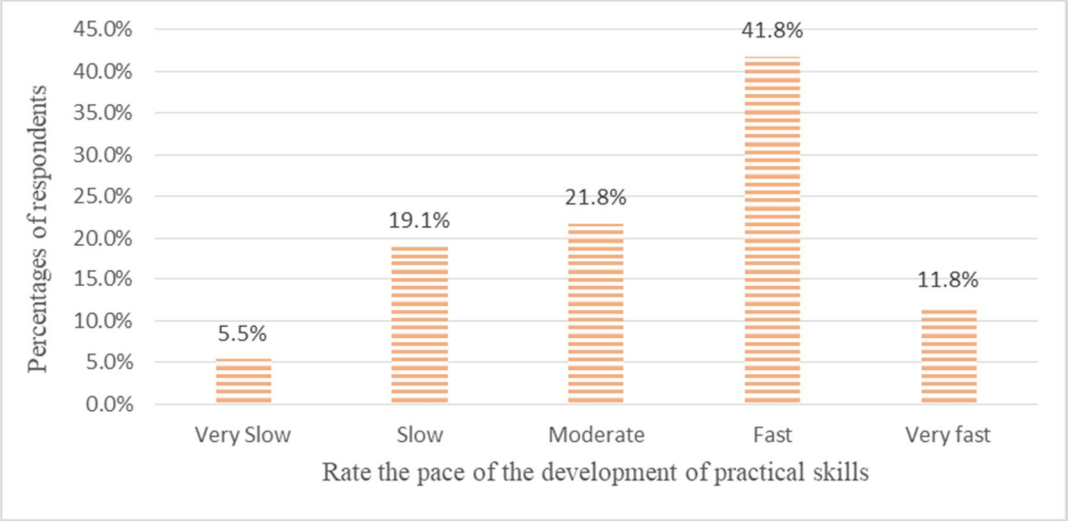
Also table 1 shows responses of teachers who participated in the study said that farming and livestock respectively were fast and very fast being implemented in their schools, 82.6 percent, (M=4.25; SD=0.735) and 74.3percent (M=3.95; SD=0.854).This means that sampled schools, government and private were practicing these practical skill activities for the realization of Vision 2025. Not only that but also learners acquired knowledge and practical skills. In addition, 60.2 percent of teachers said house building for teachers and classrooms was fast and very fast in helping implementation of practical skills for the realization of Vision 2025. This implied that learners acquired knowledge and building skills for their future benefits.

Also Fine art and Music were rated by teachers as fast and very fast meaning that learners were being taught these skills in many schools and so many learners too acquired the knowledge and skills which could help them in self employment after completing school. On the whole majority practical skill activities suggested in table 1 were all rated fast and very fast by majority teachers. This implied that teachers perceptions were positive and so were very eager to teach their learners all these practical skill activities for the realization of Vision 2025.Therefore Vision 2025 could be attained because teachers perceived implementation as progressing fast and very fast. These findings were in line with TIE,(2013) which reviewed the secondary school curriculum and emphasized practical oriented activities for the learners.

Furthermore, the researcher sought information from teachers on the pace of implementation of practical skill activities for the realization of Vision 2025 in ordinary level secondary schools. The

aim of seeking this information was to get teachers' level of perceptions on whether the realization of Vision 2025 was going to be attained or not. Teachers rated their perceptions into a five level scale that were very slow, slow, moderate, fast and very fast. The responses are summarized in figure 1.

Figure 1: Rating pace of the implementation of practical skills activities for the realization of Vision 2025 in ordinary level secondary schools (n=110)



Source: Field data 2020

The data in figure 1 shows that 41.8 percent of teachers perceived that the pace of the implementation of practical skill activities for the realization of Vision 2025 in ordinary level secondary schools was fast and very fast11.8 percent while 21.8 percent said the pace is moderate. Surprisingly, few teachers said that the pace of implementing practical skill activities for the realization of Vision 2025 was slow (19.1%) when compared to other rated levels. This implied that 75.4 percent, teachers perceived the pace very fast. The proportions (80%) of teachers responses concurred with the responses of heads of schools (81.2%, n=9) who agreed that Vision 2025 would be realized. Thus based on these findings the implementation of practical skill activities among ordinary level secondary learners was doing best and there is a high possibility that Vision 2025 could be realized .This concurs with Vygotsky (1998) who states that learners should construct knowledge which enables them to acquire practical skills.

Perceptions of learners on implementation of practical skill activities for the realization of Vision 2025

The researcher sought information from learners on how they perceived the implementation of practical skill activities for the realization of Vision 2025. This could help the researcher to triangulate the responses of learners and their teachers. The practical skill activities such as farming ,sports and games, vegetable gardening, field trips, presentation of topics, decision making, creativity and reasoning were practiced by all learners from Form one to Form four. The other practical skill activities were optional. The researcher was interested in finding out perceptions of learners and their responses are summarized in table 2.

Table 2. Perceptions of learners on implementation of practical skill activities for the realization of Vision 2025 (n=396)

Practical skill activities	Strongly disagree		Disagree		Un decided		Agree		Strongly Agree		Descriptive statistics	
	f	%	f	%	f	%	f	%	f	%	Mean	Standard deviation
Farming	65	16.5	85	21.6	34	8.6	129	32.7	81	20.6	3.19	1.412
Live stock keeping	72	18.4	87	22.2	23	5.9	117	29.8	93	23.7	3.18	1.475
Making bricks	71	18.6	79	20.7	45	11.8	78	20.5	108	28.3	3.19	1.504
House building	14	3.6	36	9.2	17	4.3	126	32.1	199	50.8	4.17	1.101
Cookery	22	5.6	31	7.9	14	3.6	112	28.7	211	54.1	4.18	1.173
Laundry	67	17.8	99	26.3	27	7.2	117	31.0	67	17.8	3.05	1.413
Carpentry	81	21.1	121	31.5	23	6.0	95	24.7	64	16.7	2.84	1.433
Field trips	72	18.6	127	32.7	36	9,3	79	20.4	74	19.1	2.89	1.424
Managing a school shop	85	22.4	111	29.3	31	8.2	92	24.3	60	15.8	2.82	1.428
Vegetable gardening	53	14.0	103	27.2	26	6.9	78	20.6	119	31.4	3.28	1.490
Using computer for searching information	54	13.9	99	25.5	25	6.4	90	23.2	120	30.9	3.32	1.479
Ability to present topic in front of class	21	5.4	58	15.0	19	4.9	125	32.3	164	42.4	3.91	1.248
Art and Craft	45	12.3	31	8.5	73	19.9	124	33.9	93	25.4	3.52	1.292
Creativity and reasoning	11	2.8	26	6.7	38	9.8	116	29.8	198	50.9	4.19	1.046
Participating in sport and games	19	5.1	24	6.5	73	19.7	147	39.6	108	29.1	3.81	1.084
Participation in decision in making	20	5.3	28	7.4	78	20.5	112	29.5	142	37.4	3.86	1.154
Fine Art activity	89	22.7	72	18.4	70	17.9	91	23.2	70	17.9	2.95	1.429
Music activity	79	20.5	17	4.4	80	20.8	101	26.2	108	28.1	3.37	1.456
Drama activity	57	15.2	28	7.5	58	15.5	132	35.3	99	26.5	3.50	1.360

Source: Field data, 2020

Table 2 shows high mean responses meaning that majority learners perceived positively all the practical skill activities enhancing the implementation of practical skills for the realization of Vision 2025.For example 53.3 percent (M=3.19; SD=1.412) of learners strongly agreed that farming in their schools was being practiced. This is again contrary to Lupeja, (2017) who asserted that secondary school learners preferred non- farm activities than farm activities. The learners also strongly agreed that livestock, making bricks, house building and cookery were being practiced in their schools .The data also indicated that carpentry,52.6 percent and Fine art 41.1percent of learners disagreed respectively meaning that these practical activities were not practiced in many schools. Since majority of learners perceived positively the practical skill activities, this implied that learners were being encouraged and motivated even to perform more practical oriented activities which made them acquire high knowledge for their betterment (Vygotsky, 1998) who states that learners should construct knowledge which enables them to acquire practical skills and become active in the mental and motor activities. The findings too show that the SD is high (1.046-1.504) throughout meaning that majority of learners agreed to all the practical skill activities. The perceptions of both teachers and learners concur. Thus, from these findings there is a high possibility that Vision 2025 could be realized through practical skill activities performed in ordinary level secondary schools. The researcher too wanted to know the perceptions of teachers on practical skills performed by learners and the responses are summarized in table 3.

Perceptions of teachers on practical skill activities performed by learners

The researcher was again interested in identifying the perceptions of teachers on how active their learners were in practical skill activities for the realization of Vision 2025.The researcher also wanted to sightsee if teachers valued and perceived well their learners' practical activities. The responses are summarized in table 3.

Table 3:Perceptions of teachers on practical skill activities performed by learners (n=110)

Statements	Not very active		Not active		Fair		Active		Very active		Descriptive statistics	
	f	%	f	%	f	%	f	%	f	%	Mean	Standard deviation
Farming	12	12.9	12	12.9	22	23.7	18	19.4	29	31.2	3.43	1.386
Live stock keeping	17	20.5	13	15.7	20	24.1	16	19.3	17	20.5	3.04	1.418
Making bricks	14	17.9	20	25.6	22	28.2	13	16.7	9	11.5	2.78	1.255
House building	14	18.2	25	32.5	16	20.8	4	5.2	18	23.4	2.83	1.427
Cookery	19	22.9	22	26.5	6	7.2	20	24.1	16	19.3	2.90	1.487
Laundry	13	15.5	12	14.3	12	14.3	25	29.8	22	26.2	3.37	1.412
Carpentry	15	20.8	16	22.2	13	18.1	17	23.6	11	15.3	2.90	1.386
Field Trips	11	12.4	13	14.6	18	20.2	18	20.2	29	32.6	3.46	1.399
Managing a school shop	12	12.4	9	9.3	10	10.3	31	32.0	35	36.1	3.70	1.371
Vegetable gardening	12	12.5	8	8.3	28	29.2	29	30.2	19	19.8	3.36	1.249
Using computer for searching information	12	12.4	8	8.2	18	18.6	22	22.7	37	38.1	3.66	1.384
Ability to present topic in front of class	9	9.6	8	8.5	31	33.0	16	17.0	30	31.9	3.53	1.284
Art and Craft	13	14.3	4	4.4	15	16.5	33	36.3	26	28.6	3.60	1.332
Creativity and reasoning	5	5.5	6	6.6	24	26.4	27	29.7	29	31.9	3.76	1.139
Participating in sport and games	8	8.0	2	2.0	18	18.0	32	32.0	40	40.0	3.94	1.179
Participation in decision in making	6	5.9	3	3.0	11	10.9	38	37.6	43	42.6	4.08	1.093
Fine Art activity	5	6.1	12	14.6	10	12.2	23	28.0	32	39.0	3.79	1.274
Music activity	12	13.5	9	10.1	28	31.5	15	16.9	25	28.1	3.36	1.350
Drama activity	17	18.9	8	8.9	20	22.2	17	18.9	28	31.1	3.34	1.478

Source: Field data, 2020

Data in table 3 shows that teachers were positive accepting that learners' participation of practical skill activities such as farming, livestock, making bricks and so forth ranged from fair to very active meaning that all learners in the sampled secondary schools participated in farm activities very well. Data in table 3 also indicates that 43.9 percent (M=4.13,SD=1.082) of teachers were positive accepting that learners were very active in sports and games and the responses were widely spread. In connection to that, practical skill activities that were active and very actively rated by teachers were creativity and monitoring subjects. Teachers reported how active learners had been using computers, the data indicated that 22.7 percent of them said they were active and 38.1percent very active (at least active=60.8%).

These findings provided evidence that teachers perceived positively that learners were active and very actively involved in practical skill activities like farming, vegetables, carpentry, field trips, managing a school shop ,and others, table 4. All the responses were widely spread meaning that learners were active through all the activities mentioned .Thus, through doing these practical skill activities learners might acquire high retention of knowledge and skills for their future benefits and towards the attainment of Vision 2025. This concurred with Chib and Wardoyo (2018), (Vygotsky1998).

Based on the findings, both teachers and learners perceived positively the implementation of practical skill activities for the realization of Vision 2025. This was evidenced by many teachers who reported that the pace of implementation of practical skill activities among ordinary level

secondary school learners was fast. Thus, there was a high possibility that Vision 2025 could be realized. These findings provided evidence that there was good work which had been done since the policy of Vision 2025 was launched in 2000, because majority learners and teachers indicated positive perceptions. The teachers and learners perceptions were the same as those of heads of schools who positively commended that Vision 2025 was going to be realized

The documentary analysis schedule revealed that,

> *Majority schools were implementing curriculum and internal examinations on some practical skill activities such as farming. The other, practical activities such building, and cookery were examined externally. The analysis showed that over sixty percent of sampled schools, their learners were involved in farming, building , cookery ,carpentry ,fine art, school shops, making bricks and others.*

This means that the learners perceived positively the implementation of practical skill activities. These findings are contrary to the findings of Lupeja (2017) who asserted that secondary school learners preferred non-farm activities than activities such as farming.

From the above findings, it is most likely that Vision 2025 could be attained through practical skills education because teachers reported that the pace of implementing practical skill activities for the realization of Vision 2025 was fast (Fig.1). Thus, the implementation of practical skills for the realization of Vision 2025 is positively perceived and anticipated that it could be realized.
The study too generated results showing perceptions of teachers on the implementation of practical skill activities for the realization of Vision 2025 among ordinary level secondary school learners by testing the hypothesis.

Hypothesis Testing
The researcher was interested in testing the relationship between rate mean scores of perceptions of teachers' on the implementation of practical skill activities for the realization of Vision 2025 among ordinary level secondary school learners. In arriving at the conclusion of the study, the researcher used linear regression in testing linear relationship between dependent and independent variables

Null hypothesis (Ho): *There is no significant relationship between rate mean scores of teachers' perceptions and implementation of practical skill activities for the realization of Vision 2025 among ordinary level secondary school learners' in Kilimanjaro Region.*

Table 4 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.473a	.224	.217	.86693

a. Predictors: (Constant), perceptions on Vision 2025 pace

Source: Field data 2020

The findings show that the variables had (r= 0.473) significant degree of relationship. The results evidenced that 21.7% of dependent variable variability was determined by perceptions of teachers on the implementation of practical skills for Vision 2025 (adjusted R square=0.217).

In ANOVA table, p-value, degree of freedom and f-value were obtained. The findings are presented in table 5

Table 5 ANOVA

	Sum of Squares	Df	Mean Square	f	P-value
Regression	23.404	1	23.404	31.141	.000
Residual	81.169	108	.752		
Total	104.573	109			

Source: Field data 2020

The results showed that there was a significant variation of variances due to the regressor and residuals. This implied that variation due to regressor was statistically significant higher as compared to residuals (F=31.404, p-value=0.000<5%). This implied that the increase of perceptions of teachers on the implementation of practical skills for Vision 2025 resulted to higher variability on the practical skills of learners acquired.

Linear regression model was formulated showing the extent to which perceptions of teachers on the implementation of practical skills for Vision 2025 influenced practical skills of learners acquired. The results are presented in table 6

Table 6 Coefficients

Model		Unstandardized Coefficients		T	P-value	95% confidence interval for B
		B	Std. Error			
1	(Constant)	1.172	.445	2.632	.010	(0.289, 2.054)
	Perceptions on Vision 2025 pace	.623	.112	5.580	.000	(0.402, 0.844)
	a. Dependent Variable: Implementing practical skills for Vision 2025					

Source: Field data 2020

The results showed that, on average there was 0.623 significant increase of practical skills ability as perceptions of teachers on the implementation of practical skills for Vision 2025 became higher (t=5.580, p-value=0.00<5%). In addition, the findings showed that there was 95% confidence that the average effect 0.623 of perception of teachers towards implementing practical skills for Vision 2025 among learners lie between 0.402 and 0.844 in the population.

Linear Model Equation:

Let :

Y =practical skills

X =strategies used towards implementing practical skills for the realization of Vision 2025

β_1=effect of perceptions of teachers towards implementing practical skills for the realization of Vision 2025

β_0=constant terms

$$Y = \beta_0 + \beta_1 X$$

$$Y = 1.172 + 0.623X$$

The researcher tested the null hypothesis and found that there was not enough evidences of supporting the null hypothesis because the P-value was less than 5% significant level and so it was rejected and concluded that: there was a significant relationship between teachers' perceptions and implementation of practical skills among secondary school learners.

Findings and Conclusion

This research paper dealt with perceptions of both teachers and learners on the implementation of practical skill activities for the realizations of Vision 2025. Teachers perceived positively the pace of implementing practical skill activities among learners and rated it as fast and very fast Fig1. Additionally ,majority learners perceived positively the practical skill activities enhancing the implementation of practical skills for the realization of Vision 2025. Also by testing the hypothesis, it was found that there was a significant relationship between teachers' perceptions and implementation of practical skill activities among learners.

In conclusion, both secondary school teachers and learners perceived positively the implementation of practical skills for the realization of Vision 2025. This made learners acquire a lot of practical skills for them to be employed or employ themselves and be self reliant.Hence this might lead to Vision 2025 to be realized through secondary school education. But not all secondary schools have these practical skill subjects such as agriculture, home economics and computer.

Recommendation of the study based on the conclusions

Basing on the conclusions of the study the researcher recommended that all stake holders in education to perceive positively the implementation of practical skills for the realization of Vision 2025.This could make them provide support of facilities of practical skill activities to teachers and learners for the implementation of practical skills for the realization of Vision 2025.Also practical subjects focused in this study such as agriculture, home economics, computer and building construction could be made compulsory for all secondary school learners to benefit from them. If this is not possible , then all schools should consider introducing at least one practical skill subject such as agriculture.

Recommendations for further studies

The study assessed implementation of practical skills in the secondary school curriculum specifically looking at the perceptions of both secondary school teachers and learners in implementing practical skills among secondary school learners. This study uncovered a lot of knowledge on perceptions of ordinary level secondary school teachers and learners in implementing practical skills for the realization of Vision 2025. A study could be done on 'Evaluation of community's perceptions towards developing practical skills among learners for the realization of Vision 2025'.

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ABBREVIATIONS AND ACRONYMS

DEO	District Education Officer
ESR	Education for Self Reliance
ETP	Education Training Policy
MoEC	Ministry of Education and Culture
MoEST	Ministry of Education Science and Technology
MoEVT	Ministry of Education and Vocational Training
ORC	Overcoming Resistance to Change
SEDP	Secondary Education Development Programme
TIE	Tanzania Institute of Education
STEM	Science, Technology, Engineering, Mathematics