

Technical and Vocational Education: It's Importance as Perceived by Graduates of Secondary Schools in St Lucia.

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Abstract

The purpose of this study was to investigate the importance of Technical and Vocational programmes implemented in secondary schools as perceived by the graduates of technical vocational programmes in St Lucia. A total of 267 respondents were involved in this study. From this number 114 were from technical vocational secondary schools and 153 from non technical vocational secondary schools. The study concentrated on three variables; Employment skills, career development choices and Curriculum. The survey method was used to collect data. The data collected were analyzed using Statistical Package for Social Sciences (SPSS) version 11.0. Descriptive statistics and t-test was used to interpret the data collected. Both groups supported with a positive level of perception towards the three variables concentrated on. However, though both groups supported, a significant difference in their perception was indicated towards employment skills and career development choices between the two groups. The t-test showed no significant difference towards curriculum. Generally, the findings indicated that technical vocational education programmes are perceived to be important in secondary schools in St Lucia.

Introduction

In the Caribbean many students who graduate from secondary schools are affected considerably as a result of unemployment. St Lucia is no exception. To date unemployment seems to be one of the major concerns of both students and parents in our society. This is because unemployment creates serious problems for both individuals and society. It is an important contributing factor for the prevalence of social problems such as drug abuse, teenage pregnancy, prostitution and even criminal offences which are beginning to plague the St Lucian society.

If the school curriculum places more emphasis on Technical Vocational education, this would provide some measure of alleviation of the problem of employment which may be increased. With the emphasis on preparation for life, including employment, the technical vocational curriculum is to be more relevant, motivating and useful to young people. Technical vocational educational (TVE) plays a vital role in a society's economic growth and social development. It offers sequence of courses directly

related to preparing individuals for paid or unpaid employment in current or emerging occupations.

Technical and Vocational education is often an instrument for structural change. It helps people for their lives and for earning a living. Technical vocational education can be viewed as a tool for achieving national economic and social objectives, such as encouraging and supporting priority industrial sectors. This policy aims to change the economic and social situation through training. In addition to economic benefits, technical vocational education can generate massive social benefits such as crime reduction, health improvement that accrues to society as a whole rather than to individuals. In this regard it is becoming increasingly common to see technical vocational education as an avenue for change in St Lucia.

Background of the study

The link between technical vocational education and socio-economic development has fairly been established. Education in general has been accepted as an investment while human resource is a critical factor in any socio-economic initiative. The problem however, is how to evolve the type of education that will best suit the human resource needs of a country. This is especially imperative for an education system which equips its recipients with skills which are likely to make them more employable.

To date it is clearly seen in St Lucia that there is a mismatch between what education develops in school leavers on one hand, and the needs of the world of work on the other. The problem discussed above is particularly serious in St Lucia now; where every year thousands of school leavers who have passed their (CXC) Caribbean Examination Council examinations with distinctions cannot find employment.

St Lucia a Caribbean island of the Windward grouping is 238 sq miles. According to the 2000 census, St Lucia has a population of 160,000 and is a member of the organization of the Eastern Caribbean States (OECS) – a regional sub grouping as well as the Caribbean Community and Common Market (CARICOM). St Lucia has seventeen secondary schools and seven privately run Post Primary institutions which cater for approximately 12,000 students. Eleven of the existing secondary schools can be categorized as a five year comprehensive schools that are providing academics as well as business, technical and some vocational subject options.

Out of these eleven secondary schools which are considered to be comprehensive only one is a full fledged technical vocational school; others offer some of the vocational subjects like Home Economics. The St Lucian society is becoming more competitive and examination results are increasingly needed to select individual for jobs. This trend has caused a major problem in attitude towards education. The focus on the other secondary schools other than the (CCSS) Castries Comprehensive Secondary School which is technically based, are on academics and results of CXC examination; thus forcing

classroom teachers to concentrate mainly on the level of achievement at examination to the detriment of the development of the total child.

According to ministry of planning, the latest survey conducted in St Lucia in 1999 showed 20% of those who should be in the labour force were unemployed. To be more precise, St Lucia's Statistics Department Report for July 1999- June 2000 as it pertains to unemployment among school leavers, in the 15-19 age group, 34-38% consisted of males and for females in the same group 49-51%. As the figures indicated, the unemployment situation among school leaver as is in no uncertain terms on the rise. These problems do not merely affect the immediate persons but also future generations. These social circumstances are pertinent factors indicating the need for immediate attention to the school curriculum. The lack of relevant technical vocational education and professional skills are probably the most critical problems faced in St Lucian's school today. It is these educational needs of the country that are of interest to this study.

In the study the premise that technical vocational education contributes to solving unemployment and economic development is accepted. The importance of technical vocational education in secondary schools as it relates to employment skills, career development and curriculum is being researched. The perceptions of graduates of secondary schools are the main focus. The question asked is: What is the importance of technical vocational programmes implemented in secondary schools as perceived by graduates of secondary schools in St Lucia?

Research Questions

Accordingly the following research questions were generated:

1. How do graduates of technical vocational secondary schools perceive the importance of technical and vocational education in schools as it relates to employment?
2. How do graduates of non- technical vocational secondary schools perceive the importance of technical and vocational education in schools as it relates to employment?
3. How do graduates of technical vocational secondary schools perceive career development choices in relation to the technical vocational skills learnt during their studies at the secondary level?
4. How do graduates of non-technical vocational secondary schools perceive career development choices in relation to the technical vocational skills offered at the secondary level?
5. How do graduates of technical vocational secondary schools perceive the inclusion of technical and vocational education on the schools curriculum?

6. How do graduates of non-technical vocational secondary schools perceive the inclusion of technical and vocational education on the schools' curriculum?
7. Is there any significant difference between the perception of graduates from non-technical vocational secondary schools and those from technical vocational secondary schools towards the importance of technical and vocational education ?
8. Is there any significant difference between the perceptions of the graduates from the technical vocational secondary schools and those from the non-technical vocational secondary schools towards the importance of technical vocational education, in terms of gender?
9. Is there any significant difference between the perceptions of graduates of technical vocational secondary schools and that of non-technical vocational schools towards the importance of technical and vocational education in terms of age?

Methodology

This study employs the survey method. The mail survey was used. Questionnaires were used; aimed at finding the perceptions of graduates of secondary schools on the importance of technical vocational education implemented in secondary schools in St Lucia. Three variables were concentrated on; Employment skills, career development choices and curriculum. The questionnaire consisted of thirty six statements and the Likert scale was used for the rating. A total of 295 respondents were chosen from two groups; graduates of technical vocational secondary schools and graduates from non-technical vocational secondary schools. Of that number 267 usable survey instruments were returned for a response rate of 90.5%. Of the returned instruments, there were 114 from the technical vocational secondary schools and the remaining 153 from non technical vocational secondary schools.

Data Collection

Data were collected by mail survey. Questionnaires were packaged according to the different grouping and mailed via FedEx to a representative in St Lucia who in turn carried out the actual administering of the instrument. All individuals selected for the actual data collection were contacted prior to the administering of the questionnaire. During this initial contact, the respondents were informed of the nature and aim of the study. The researcher through her representative solicited their assistance and invited them to participate honestly in the study.

To encourage participation in the study a survey cover letter was sent to each individual. The procedure recommended by Dillman (1978) was utilized to collect data. The initial mailing was made during the last week of May, 2005 .Survey instruments

were sent to 295 graduates from secondary schools. A total of 120 to graduates of technical vocational secondary schools and the remaining 175 went to graduates of non technical vocational schools (academic schools).

During the actual data collection the respondents were required to complete a questionnaire administered by representative due to the distance of the country of experiment and researcher's place of study. Two individuals were used for this process; One Education Officer in the Ministry of Education and one technical vocational teacher. A cover letter was included in which more detailed information of the study was provided.

After three weeks a reminder was sent to representative to check on the progress. The questionnaires were returned by the 21st June 2005. A total of 267 (90.5%) responses were received. There were twenty- eight non-respondents.

Data Analysis and Findings

Data collected were analyzed using the Statistical Package for the Social Sciences (SPSS) version 11.0. Descriptive statistics and t-test was used to interpret the data. Data collected illustrated that graduates showed a high level of positive perception towards the importance of technical vocational education in secondary schools in St Lucia. Below are the details of the findings.

Research Question one and two sought to find out graduates perception on Employment skills. Analysis is shown in table which follows.

Table 1 Analysis of Respondents' Perception on Employment Skills

Items	Technical Vocational N= 114		Non- Technical Vocational N=153	
	Agree %	Disagree %	Agree %	Disagree %
14	91.2	0	85	5.1
15	100	0	94.8	1.9
16	99.2	0	96	0
17	98.2	0	92	0
18	97.4	0	88.9	2.6
19	97.4	0	86.9	3.9
20	100	0	90.2	.6
21	100	0	91.5	2
29	91.3	6.1	41.2	40.3
30	100	0	88.2	2.6
31	100	0	95.5	.6
32	100	0	90.9	.6
Mean	985	6.10	82.30	6.02
SD	3.8	-	17.6	12.1

Both the graduates of technical vocational secondary schools and those of non technical vocational schools responded positively and expressed support to the idea that technical and vocational education is necessary to help develop and provide employable skills for students.

For the Technical vocational secondary school graduates, although every item which dealt with this variable was positively supported, items 15,20,21,30 31 and 32 were the most highly regarded with a score of 100% in agreement. With regards to the non technical vocational secondary schools graduates items 15, 20 21, 31 and 32 also scored highly. However the score for item 29 was below 50%. Only 41.2% were in agreement. It is suggested that for this item the percentage rate of the respondents was low because these graduates were not exposed to technical vocational subjects except for Home Economics and as a result may not have been able to use skills to start any business. A number of these graduates were also undecided for certain items. This was either as a result of the lack of knowledge about technical vocational subjects or rather they were skeptical of responding since they were not sure.

For research question three and four, twelve items were designed to find out the perception of graduates on Career Development and results were as follows:

Table 2. analysis of respondents' perception on Career Development

Items	Technical Vocational N= 114		Non- Technical Vocational N=153	
	Agree %	Disagree %	Agree %	Disagree %
6	96.5	2.6	91.7	2
7	100	0	96	.7
8	100	0	95.4	.7
9	100	0	95.4	1.3
10	100	0	66.5	9.2
11	100	0	88.9	2.6
12	100	0	85	.2.6
13	100	0	93.5	1.9
25	100	0	86.9	3.3
26	86.8	.9	47	32
27	100	0	50.3	37.2
28	98.2	.9	91.5	.7
Mean	97.9	1.7	86.8	5.7
SD	3.263	0.981	14.742	10.717

The analysis for graduates of the technical vocational secondary schools no doubt revealed their perception of the importance of technical vocational education in term of career development. From the items designed for this research question, out of the twelve items, nine scored 100% and the remaining three also had very high scores in the 90's. This signifies that they, the respondents perceived that technical vocational education as important to the development of career choices in St Lucia.

According to the analysis it is noted that the graduates of the non technical vocational secondary schools considered this variable as important. From the twelve items, items 26 and 27 scored the lowest. This is because these students are not exposed to all the technical and vocational subjects at their schools except for Home Economics and therefore may not be able to use the skills for survival. However, a few of the respondents showed support. This is either they may have used one of the components of Home Economics or they may have seen the benefits of Technical Vocational education through the success of their colleagues. Generally the analysis indicated that the graduates of the non technical vocational secondary schools regard technical and vocational programmes implemented in secondary schools as being important for the development of career choices.

Table 3. Analysis of respondents' perception on Curriculum

Items	Technical Vocational N= 114		Non- Technical Vocational N=153	
	Agree %	Disagree %	Agree %	Disagree %
1	98.2	1.8	98.7	0

2	98.2	0	99.3	0
3	99.1	0	94.2	0
4	99.1	0	89	1.8
5	91.2	0	76.5	8.5
22	92.1	0	82.3	3.3
23	98.2	0	83.7	2.6
24	95.6	0	90.1	.7
33	100	0	98.7	0
34	100	0	98.7	0
35	100	0	100	.0
36	100	0	99.3	.0
Mean	98.3	1.7	92.5	3.3
SD	2.3239	-	8.103	3.021

The data which was analyzed showed that this group, graduates of technical vocational secondary schools perceived that Technical and Vocational subjects should be included on the curriculum. Out of the twelve items designed for answering this research question, 4 scored 100 % and the remaining except for item 4 with 89% scored in the 90's. The pattern of response for each item indicate that there is agreement in favour of Technical vocational education. With reference to the analysis, it is clearly seen that both groups of graduates; those from the technical vocational secondary schools as well as those from the non-technical vocational schools (academic) perceived the inclusion of technical vocational programmes on the school curriculum as being important.

These responses answered research questions five and six which sought to find out the importance of the inclusion of TVE on the secondary school curriculum. This observation is of particular interest to the purpose of the study. The pattern of response for each item shows strong agreement to the implementing of TVE in secondary schools on the island.

Research Question Seven

Is there any significant difference between the perceptions of graduates from non technical vocational (academic) secondary schools and those from technical vocational secondary schools towards the importance of technical vocational education in terms of gender?

An independent t-test was used to compare the mean difference between male and female respondents towards the importance of TVE in the study. The results of the test is shown in table 4 . The test shows that there is no significance difference in the way males and females perceived technical vocational education in St Lucia.

There were more females respondents than males in this study. In both schools the number of females surpassed the number of males. However they did not differ in their perception towards the importance of technical vocational education. Both groups considered TVE as important.

Table 4 Results of t-test on Gender and Perception towards

Technical Vocational Education

Gender	N	Mean	SD	df	t-test	2-tailed (p) 0.05
Male	110	1.38	0.488	265	-1.247	.213
Female	157	1.45	0.499	238.201	-1.253	.212

Research Question Eight

Is there any significant difference between the perceptions of graduates of technical vocational secondary schools and those of non technical vocational secondary schools towards the importance of technical vocational educational in terms of age ?

To compare the difference between age and perception, an independent t-test was conducted. The results in table 4.21 showed that there was no significant difference between the various age groups in terms of their perception towards the importance of technical vocational education. For the study the age range of respondents were 17-19 years and 20 years and above. The majority of the respondents were above 20 years this showed a matured population with much experience and therefore were able to make responsible decisions. However even the age range differ, there is no significant difference in their perception. This indicates that age did not influence respondents' perception towards the importance of technical vocational education.

Table 5 Result of independent t-test on age and Perception towards Technical Vocational Education

Age	N	Mean	SD	df	t-test	P 2-tailed (0.05)
17-19	70	1.357	0.482	265	-1.375	.170

20+	197	1.451	0.498	125.012	-1.397	.165
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Research Question Nine

Is there any significant difference between the perceptions of graduates from Non-technical vocational secondary schools and those from technical vocational schools towards the importance of technical and vocational education?

An independent t-test was used to compare the difference in perception between graduates of technical vocational secondary schools and graduates of non technical secondary schools towards the importance of technical and vocational education. Table 6-7 show the results of the t-test in terms of each of the variables used in the study. The variables are:

1. .Employment skills
2. Career Development
3. Curriculum.

Table 6: Results of independent t-test on perception towards Employment Skills

School	N	Mean	SD	df	t-test	P 2 tailed (0.05)
Technical Vocational	114	3.00	.000	152	-5.052	.000
Non-technical vocational	153	2.85	.352	265	-4.359	.000

To compare the difference between perceptions of technical vocational graduates and non- technical vocational graduates of secondary schools towards employment skills, t-test was conducted. The results showed that there was a

difference in the level of perception towards the variable between the two groups. However, it is not negative. With reference to the data analysis both groups supported employment skills positively although there was a slight difference in the means of some items.

According to the result of t-test conducted to compare the difference in perception between the groups towards career development choices in table 7, a significant difference between the levels of perception of the two groups was also indicated. This too was positive since the analysis of the data showed that there was support for this variable by both groups. However the level of perception was different.

Table 7 Results of independent t-test on perception towards Career Development

School	N	Mean	SD	df	t-test	P 2tailed (0.05)
Technical Vocational	114	3.00	.000	152	-7.083	.000
Non-technical vocational	153	2.69	.428	265	-8.210	.000

Table 8 Results of independent t-test on perception towards curriculum

School	N	Mean	SD	df	t-test	P 2tailed (0 .05)
Technical Vocational	114	3.00	.000	152	-.863	.389
Non-technical vocational	153	2.99	.808	265	-1.000	.319

Table 9 Summary of Respondents Perception

VARIABLES	RESULTS		LEVEL OF PERCEPTION
	Agree%	Disagree%	
Employment Skills	90.37	9.63	Positive
Career Development	92.32	7.68	Positive
Curriculum	98.31	1.69	Positive

Summary

Overall the study discusses respondents' perception on the importance of Technical vocational programmes in secondary schools in St Lucia. Demographic characteristics were discussed as well as perception on each of the variables according to the research questions. There was no significant difference in the way respondents perceive TVE in terms of gender and age. Generally both groups which made up the population of the study perceived technical vocational education as important. The findings revealed that their level of perception were positive towards the topic. Though there was a consensus in terms of supporting the topic, the t-test showed a significant difference in perception towards employment skills and career development choices between the two groups. However this is positive. No difference was indicated in terms of curriculum.

Conclusion

St Lucia is changing rapidly. To date it is clearly seen that there is a mismatch between what education develops in school leavers on one hand and the needs of the world of work on the other. The problem discussed is particularly serious where every year thousands of secondary school leavers pass their (CXC) Caribbean Examination Council with distinctions cannot find employment. A rate of about 20% youth unemployment exists to date. (Ministry of Planning 1996).

The findings of the study indicates that there is a need for the implementation of technical and vocational subjects on the secondary school curriculum . Respondents showed support as they have seen and experienced the

benefits of technical and vocational education. They believe that this can help in providing jobs for individuals in the country.

The curriculum therefore should be sensitive to social change and school programmes different from what they were previously. The trend in our society and the inadequacy of the markets clearly indicate a need for a different focus in education at the secondary level, hence the need for this addition to the curriculum.

The need for new development in curriculum does not just happen. The need arise as the basic needs of our society change. St Lucia' present economical condition, technology and development supports no doubt indicate that there is a need for change in terms of the curriculum and even more so the unavailability of jobs that accompany these situations.

Recommendations

Based on the findings of this study the following recommendations are made:

- 1 Current education system in St Lucia focuses more on academics. Apart from CCSS which has been a full fledge technical and vocational secondary school from its inception, most secondary schools offer only some of the vocational subjects like Home Economics. Therefore since the findings of the study indicated that respondents supported the inclusion of Technical Vocational education on the curriculum, that full fledge technical vocational with all the vocational subjects and technical skills be implemented in more secondary schools on the island in order to provide job opportunities for the youth
- 2 Most secondary schools offer Home Economics. It is recommended that other than Home Economics, technical and vocational subjects like Agriculture, Drafting, Electricity and Mechanical- Engineering should be added to the school's curriculum. as these skills will provide opportunities which match the economic activities of the country
- 3 The Ministry of Education should develop a National Framework for Technical Vocational Education. This framework should indicate the national structure of technical vocational education in St Lucia for at least a five year period. The framework should also indicate the articulation between programmes at secondary and tertiary level.
- 4 The current teacher training programme in St Lucia caters for general teaching and Home Economics. The development of a teacher trainer programme whereby teachers of Technical Vocational Education can be trained in their specific skill area should be considered. This will provide opportunity for high quality standard at all level of skill development.
- 5 It is also recommended that a joint programme be implemented with countries with well established and successful Technical Vocational Education programmes like

Malaysia whereby professionals can visit to conduct workshops or teachers can be sent to train. This would help enhance the current situation of TVE in St Lucia.

6 A national workshop inviting policy makers, representatives from Technical Vocational Education and Training and the different industries held to discuss the appropriate legislation and skills needed for the enhancement of Technical Vocational Education in St Lucia. The establishment for a national vocational skills standard for Technical Vocational Education should be considered.

Recommendation for Further Study

1. Further research that builds on results of this study should be conducted to determine the appropriate delivery system for future oriented Technical Vocational Education in St Lucia.
2. Further research regarding the importance of technical vocational education should include educators and employers of industrial sectors.
3. The graduates in this study were restricted to the technical vocational education Association and academic secondary schools. Further research should include island wide samples of graduates.

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