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## Influencing Students' Technical Vocational Education and Training Career Path: A Qualitative Research

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### Abstract

Technical Vocational Education and Training programmes (TVET) are an important component in developing many countries economically and socially. We studied factors influencing students' decisions to pursue a TVET-related career path in Antigua and Barbuda. The research was carried out at the Light Path Secondary School using qualitative data, adopting document analysis and interviews with teachers, administrators and parents. Our work found several factors influencing students' choice of TVET subject. From our study three (3) themes emerged. The first theme was stigma and a lack of adequate resources, which were classified as challenges. Parental guidance and students' interests were additional factors categorised as influencers. Our last theme, benefits, saw entrepreneurship as a possible mechanism to help students in their career quest. It was concluded that career guidance and TVET courses at the secondary school level are not meeting students' needs, which negatively impact their interest in pursuing these courses.

*Keywords:* Antigua and Barbuda, career choice, career guidance, entrepreneurship, parental guidance, secondary school, TVET

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## **Introduction**

Technical and vocational education and training (TVET) serves as an important factor for development. Our study investigated the factors that affect students' choice of a TVET career path. Hasanefendic et al. (2015) posit that the knowledge and skills gained from engaging in a TVET programme can create a skilled workforce with qualifications that are relevant to a country's labour market demands. Our research sought to ascertain choices for pursuing TVET-related careers from the perspectives of parents and teachers. Choices from both parties are instrumental in the development of a student's academic achievement. According to Kazi and Akhlaq (2017), parents and a child's home environment are major factors in influencing students' choice of career since that is the foundation of one's value system. Eremie and Chiamaka (2019) support this view and argue that family influences play a key role in students' decisions in selecting a career. Thus, the parents involved in this study will provide rich data about how their experiences and advice offered to students help in determining a child's career choice. According to Abe and Chikoko (2020), teachers have a strong influence on students' choice of career. Hence, seeking to ascertain teachers' perspectives is justified as many teachers are viewed as mentors and can impact a student's decisions about various issues. Our study is significant because it examined the factors that influence students in pursuing a TVET career path. This is important given that TVET can improve the employability of the youth and can provide socio-economic development opportunities for the nation. TVET is known to be a game changer towards economic and social development (Mack, White & Osiris, 2019). An analysis of the factors can act as a guide for the government entity responsible for TVET - the National Training Agency (NTA) - in creating strategies to attract students to the programme's offerings in the different institutions. Furthermore, the results of this study can assist policymakers in designing programmes that will be attractive to students while meeting the needs of the job market.

We sought to examine student choices when pursuing career paths and investigated the factors influencing students' decisions to pursue a TVET career path in Antigua and Barbuda. Our study utilized a case study examining students pursuing career choices at a high school in Antigua and Barbuda. We used a qualitative approach to determine the influencers when choosing a career path for high school students in Antigua and Barbuda.

We used the following questions to guide our investigation:

### **Research Questions**

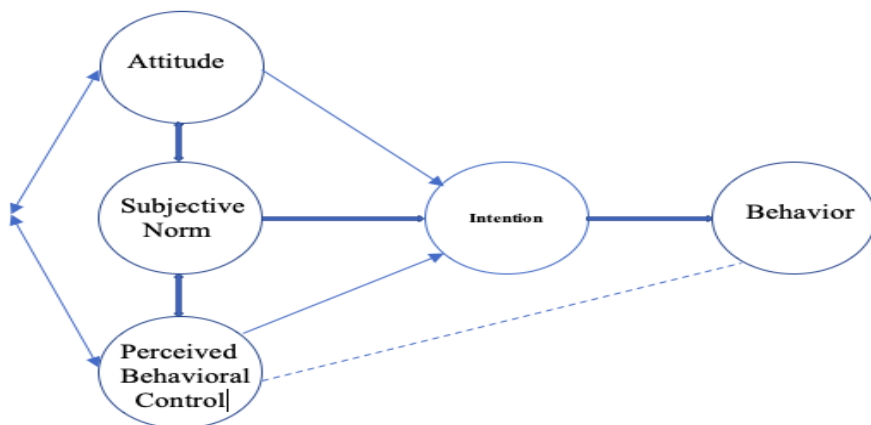
1. What factors influence students' decisions to pursue a technical and vocational career path in Antigua and Barbuda?
2. What linkages are there, if any, between parental preference and students' interests in pursuing TVET subjects?

3. What is the relationship between teachers' availability and guidance and students' interest in TVET?
4. How does access to training affect students' interest in technical and vocational careers?
5. What is the relationship between public perception of technical and vocational careers and students' interest in TVET?

### **Literature Review**

While the many benefits of TVET have been touted over the years, it is a segment of the education sector that has been neglected in many developing countries due to negative public perception and inadequate funding (Arfo, 2015). Additionally, research done in Trinidad and Tobago (Mack & White, 2019) showed significant challenges associated with TVET, including stigma. In Germany, children are introduced to TVET at an early age; even from kindergarten, children are seen using hand tools and being molded by senior tradesmen at exhibitions (Mack, 2015). Several factors influence a student's decision to pursue TVET; Safamamad (2019) notes that the most significant is the influence of parents. In addition, the influence of siblings and friends, practical experience and the availability of jobs within the desired field impact a student's choice to pursue TVET (Safamamad, 2019). The theory of planned behaviour (TPB), as shown in Figure 1, was "designed to predict human behaviour in specific contexts" (Ajzen, 1991, p. 132) and highlights how persons are influenced or how choices are made. According to Ajzen (1991), the theory's central premise surrounds an individual's intention to engage in a particular behaviour. Intentions frequently develop into action (Abioye, 2020). Intentions are linked to the factors that motivate an individual to behave a certain way and are demonstrated by the effort a person is willing to exert and his or her drive towards achieving a goal. Additionally, an individual's performance is influenced by other factors such as the opportunities offered and the availability of resources such as money, time and assistance (Ajzen, 1985, 1991). According to dos Santos (2018), TPB has three variables: attitude (the positive or negative feelings towards a situation), subjective norms (the approval of important persons in an individual's life) and perceived behaviour control (factors that limit behaviour). Other scholars (Liñán et al., 2011; Liñán and Santos 2007) highlighted TPB as a model that defines human behaviour and is impacted by cultural and social environments.

**Figure 1**  
*Theory of Planned Behaviour Framework*



*Information adapted from: Ajzen (1991) The theory of planned behaviour.*

## Methods

We used data triangulation by combining various methods in our study. The use of focus groups, interviews and document analysis helped establish credibility which is done by utilising various approaches to gather data to ensure that the findings are accurate (Shenton, 2004). We used a qualitative method to conduct our investigation. A qualitative approach is exploratory and most appropriate when the key variables are not known by the researcher (Morse, 1991; Creswell, 2014). Additionally, it is useful when the issue is new or has not been discussed in relation to a particular group of people. While this topic is by no means new, it has not been addressed from the perspective of the proposed participants within the Antiguan context. Thus, this method was suitable for the research conducted. Furthermore, qualitative research provides a rich, contextual, and detailed understanding of phenomena (Rahman, 2016). This is the type of investigation required by this topic, given that the factors that may influence a choice of career path are complex and are impacted by a myriad of factors. In addition, the rationale behind each individual's choice is personal and unique.

This research followed the interpretivist approach, which focuses on an individual's experience and his or her view of reality (Cohen et al., 2018). Interpretive researchers set aside their judgements and seek to investigate participants in their environment with the aim of understanding their idiosyncrasies. Thus, an important premise of this paradigm is that reality is a social construct of each individual and as such interpretivism is also referred to as constructivism or social constructivism (Kuyini & Kivunja, 2017). The authors further note that data are analysed via

grounded theory since theory does not precede research and is grounded on the data gathered. According to Noble and Mitchell (2016), grounded theory is “concerned with the generation of a theory which is ‘grounded’ in data that has been systematically collected and analyzed” (p.34). The authors also posit that grounded theory is suitable for examining social relationships and behaviours. Hence, this approach was appropriate for this research as it sought to investigate how students’ relationships with family, peers, and teachers influence their choice of career path.

### **Population and Sample**

Our study comprised teachers, administrative staff and parents of students from a high school in Antigua and Barbuda (Light Path Secondary School (LPSS)). The school is one of the largest government-run high schools with an average roll of 780 students and approximately 90 teachers. The students’ ages generally range from 11-17 and they tend to come from low to middle income households. The LPSS offers a varied curriculum, offering academic and TVET subjects, whereas some schools in Antigua and Barbuda have limited options in TVET offerings, particularly the private institutions whose students are generally from middle to high income homes. Hence, LPSS’ varied curriculum most likely developed over time to meet the needs of students based on their socio-economic background. Thus, LPSS was an appropriate choice for our investigation. Purposive sampling involves using the researcher’s judgment to determine who can provide the best information in exploring a given subject matter (Kumar, 2011). LPSS gave us the confidence to gather sufficient data to investigate the issue of selection of career choices. Additionally, we used purposive sampling because it allowed us to select information-rich cases for meticulous research (Patton, 2015) and select available and willing persons (Bernard, 2002; Spradley, 1979).

While all teachers make up the total population (of teachers), approximately eleven individual teachers, two guidance counselors, one deputy principal (female), and the principal (male) were selected. All teachers’ ages ranged from 25-50. Of the 11 teachers, seven are female while 4 are male. Additionally, they have five or more years’ experience and would have provided guidance to students regarding both academic and life choices. Also, two focus groups of teachers of TVET subjects comprised eleven persons. The first focus group of TVET teachers comprised the six female teachers attached to the Home Economics Department, while the second focus group included five (one female and 4 male) teachers from the Industrial Arts Department. All teachers were selected to give wide-ranging views on the issues at hand. In addition, ten parents (eight females and two males) of third to fifth-form students were interviewed. We sought the assistance of the parent coordinator in selecting parents. The parent coordinator was asked to identify five parents at each level from levels three to five who may most likely be willing to participate. The parent coordinator is often in contact with parents; thus, her guidance was deemed worthwhile. We then contacted these parents via telephone, and the ten parents chosen were those who agreed to participate. The rationale for selecting parents across these levels was that the students and their parents would have most likely discussed career choices as it is from the third form that students begin to narrow the number of subjects done. The influence of parents is a critical factor in a child’s

career choice (Omar et al., 2020), and as such, we sought to determine the level of input from the selected parents. Thus, we believe not sampling the students does not diminish the quality of the research as those sampled hold great influence in the lives of students. Braun and Clarke (2013) posit that a minimum sample of 12 is needed to attain data saturation in qualitative studies. Thus, after our 15 interviews we were satisfied we had reached the point of data saturation.

### Interviews

We used individual interviews and focus group interviews in gathering relevant data. These interviews were conducted over one week, and all interviews were recorded. The interviews with teachers were face to face and carried out from 1 to 3 March, 2022 while the parental interviews were held from 5 to 8 March, 2022 via telephone. Table 1 provides a breakdown of how the interviews were conducted. All the interviews were conducted using a semi-structured approach (Kumar, 2011), allowing us to guide the discussion so that pertinent areas were addressed while enabling participants to express their thoughts freely. An interview is a verbal exchange in person, via telephone, or another medium to obtain an individual's perspective about a selected topic (Burns, 1997). Some advantages of interviews include information can be supplemented by non-verbal responses gleaned through observation, explanations can clarify misunderstandings, follow-up questions can be asked, and this method can be used with any population (Kumar, 2011). There were 15 individual interviews, each lasting approximately 35 minutes, and two focus group interviews with teachers; both took around 45 minutes. The parental interviews took approximately 30 minutes each and were done after all interviews with the teaching staff were completed.

**Table 1**

*Persons interviewed*

Participants	Number of interviews conducted
Principal	1
Deputy principal	1
Guidance counselors (individual)	2
Individual teachers	11
Focus group #1 (Home Economics Dept.)	1
Focus group #2 (Industrial Arts Dept.)	1
Parents	10

### **Document analysis**

“Documents can be a rich source of data” (Bowen 2009, as cited in Louw, 2021, p. 4) and serve various purposes during the research process. For instance, the information gleaned from documents can help to generate interview questions and provide supplementary research data. In addition, documentary evidence can identify areas where further research is necessary if the information gathered differs from that of other sources. Document analysis allowed us to scrutinise and deduce the data, enabling us to produce significant understanding and develop practical knowledge (Corbin & Strauss, 2008). We chose to examine the subject option sheets (see Appendix B) available for students entering the third and fourth forms. Beginning in the third form, students refine their subject choices based on preference and other factors such as their intended careers. The option sheets limit students to the number of subjects they can choose, for instance, fourth formers generally cannot do more than nine subjects. Furthermore, students are limited in the number of TVET related subjects, for example, a third former is unable to pursue Mechanical Engineering and Building and Furniture Technology or Food, Nutrition and Health and Family and Resource Management. Additionally, students reduce the number of subjects undertaken and begin the process of identifying which subjects they are likely to sit at the Caribbean Secondary Education Certificate (CSEC). These documents were selected to determine if they could influence students’ subject choice to provide an answer to the main research question.

The material utilised by the guidance counselors was examined to determine if it was relevant to the issues addressed by the research. During the interview process, the guidance counselors revealed a booklet entitled, ‘The Career Key- Caribbean Edition’ (see Appendix C) to aid in helping students select possible career paths that they may wish to pursue. An educational firm in Jamaica produces The Career Key. This booklet was not part of the national curriculum and was introduced to the school by one of the guidance counselors. The key is a seven-step document that matches students’ aptitudes, talents, skills, and other traits with personality types such as artistic and investigative. The Career Key also suggests possible careers based on students’ characteristics and recommends steps students can take to begin planning ways to achieve their goals. Therefore, the information provided by the Career Key and the guidance provided by counselors on the topic of career choice were explored to determine if they are possible influences of students’ career choices.

### **Data analysis**

#### **Thematic analysis**

One method that is used extensively in qualitative research is thematic analysis (Boyatzis, 1998; Roulston, 2001). The thematic analysis allows us to see patterns and trends in the data, reporting and analyzing patterns (Braun, 2006). We used the themes in an inductive or “bottom-up” way

(Frith & Gleeson, 2004). This allowed us to follow the data as it emerged rather than using a deductive approach where the data is theoretically driven. We used the inductive approach as we were interested in seeing trends and allowing the data to answer our questions. We did not focus on theory to answer the research questions, rather allowed the data to answer the research questions. According to Thorne (2000), data analysis is a complex process that often receives minimal focus in the research process. Kiger and Varpio (2020) further note that thematic analysis can be used within a variety of theoretical and epistemological frameworks to provide a rich and contextual interpretation of data. The use of this approach involves coding and identifying themes or patterns for in-depth analysis. All interviews were recorded and then transcribed using an online transcription application known as 'Otter.' We then printed all transcripts and had them bound. We then listened to each interview and made the necessary edits as the transcription, in some cases, did not accurately reflect what was said. This was due to the Caribbean accent not being correctly understood and transcribed. The coding process began during the editing phase as we began to recognize common phrases and ideas expressed by participants. Highlighters of different colors were used to mark common themes. We then made notes by grouping similar ideas and eventually linked similar ideas and discarded those that were not prominent or strongly related to the research. Main themes and subthemes were then developed to be explored by the findings and discussion sections.

### **Document analysis**

“Document analysis is a systematic procedure for reviewing or evaluating documents- both printed and electronic (computer-based and Internet-transmitted material)” (Bowen, 2009, p. 27). The authors further note that document analysis reduces bias as it serves to corroborate findings from other data collection methods within the same study. We examined the documents and interpreted the information provided and sought to make linkages to information gathered during the interview process. O’Leary (2014) suggests an eight-step process for document analysis: gather relevant texts, develop a plan to organise and manage, make copies of originals if necessary, determine authenticity, explore the purpose and possible biases of documents, assess background information such as tone, ask relevant questions and explore content. We eliminated some steps as documents were shared by the principal and guidance counselor which ensured their authentic nature. We obtained copies of all documents and explored their purpose which surrounded providing guidance to students. Relevant questions were asked during the interview process, particularly about the Career Key as we were unfamiliar with this document. We explored the content by searching the document and organizing the information based on how they relate to the central questions of this research. The Career Key helped in coming up with data regarding the theme ‘Influencers’ since it helped us ascertain matters relating to how students select choices at school.

### **Ethical Considerations**

According to Cohen et al., (2018), “ethics concerns that which is good and bad, right or wrong.” The authors further note that researchers must consider participants’ well-being and take responsibility for ensuring that participants are treated in a manner that preserves their dignity. For

this research, several important ethical concerns were taken into consideration. This research was approved by an accredited university. Informed consent means that respondents are aware of the type of research being conducted, and its purpose and voluntarily agree to participate (Kumar, 2011). The respondents in this study were provided with a detailed and truthful explanation regarding the purpose of the study before agreeing to participate. Additionally, the informed consent form was read to all participants who were required to give consent before the start of each interview. Participants were informed of their right to withdraw at any given time. Permission was sought from participants to record each interview including those conducted via telephone.

Respect for anonymity and confidentiality means that all participants' identities must be protected so that responses cannot be linked with their responses (Fouka & Mantzorou, 2011). The views and opinions of participants were not shared with any other parties. The researchers kept all hard copies of information in a safe space where others could not view research-related documents. In addition, soft copies were saved on a password-protected device to ensure privacy and security. According to Cohen et al. (2018), a respondent's right to privacy goes beyond confidentiality and means that an individual has the right not to participate or withdraw from a research. The researchers engaged in the above-mentioned ethical practices to gain and maintain respondents' trust as well as to ensure the reliability of the study.

Both researchers are educators: researcher A is a junior researcher while researcher B is a lecturer and research supervisor with approximately 10 years of experience in the field. Researcher A collected all data and both researchers developed and analyzed themes. Researcher A was an employee at the institution during the research process and enjoyed a cordial and professional relationship with colleagues. Despite being familiar with participants, no attempts were made to influence responses given.

## **Findings**

Information from the interviews were the main proponent of gathering data to inform our findings. The document 'The Career Key' gave way to minute data aspects to our last theme; influencers. It highlighted the limited guidance the school provides in choosing a career path for students. This study was significant as we were able to garner several responses that allowed us to obtain the perspectives and experiences of our research participants at Light Path Secondary School (LPSS). Data revealed several issues related to pursuing TVET as a career choice at LPSS.

Three main themes emerged from the information gathered from participants of the study:

1. Challenges
2. Benefits
3. Influencers

Table 2 provides a summary of all research questions and the individual themes that answered each question.

**Table 2**  
 Research questions and themes that answered questions

Research Questions	Themes which answered research questions
What factors influence students' decisions to pursue a technical and vocational career path in Antigua and Barbuda?	Challenges (all subthemes), Benefits (all subthemes), (Influencers (subthemes 1-6)
What linkages are there, if any, between parental preference and students' interests in pursuing TVET subjects?	Influencers (Parents)
What is the relationship between teachers' availability and guidance and students' interest in TVET?	Challenges (Training of TVET teachers), Influencers (Limited subject options)
How does access to training affect students' interest in technical and vocational careers?	Challenges (Inadequate resources)
What is the relationship between public perception of technical and vocational careers and students' interest in TVET?	Challenges (Stigma), Benefits (Entrepreneurship)

The following subthemes were created for this particular theme as highlighted below:

**Challenges**

- Stigma
- Inadequate resources
- Cost
- Lack of TVET standards
- Training of TVET teachers
- Lack of practical experience

“Stigma negatively affects how possessors of an undesirable trait are viewed by those around them and by society; as such, it exerts significant influence over people’s identity” (Crosby, 2012, p. 2). Stigma related to persons who engage in TVET careers and choose to do TVET subjects in high school was a dominant issue identified by teachers and parents. Additionally, stigma is attached to TVET teachers.

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*Teacher's response (focus group interview #1): .... society in general, they think only slow people do these kinds of subjects.*

*Teacher's response (individual interview #2): Some of them, they see [sic] them as persons who would have failed in some way so they had no choice but to get their hands dirty, fixing cars, you know. If a student leaves and goes working to make furniture, they might say that person did not do very well in school, they did not come out with any paper, as we say certificate. And I think we look down on them a lot in society, we look down on these people because of what they do.*

One parent's (parent #5) response to the question of how persons engaged in TVET careers were viewed when they were growing up, echoed those of teachers:

*It was basically the not so smart students that will [sic] do them...even in high school, the bad boys were the ones who did woodwork and all that, the other kids were doing Physics and Chemistry and all that.*

These statements are indicative of the problem manifesting within the school system and wider society. Another problem facing TVET areas at the school is the lack of adequate resources to facilitate effective instruction. The following will provide insights surrounding the problem:

*Principal's response: But what you also find is that most of the machinery that are now in our labs are antiquated, they are out of service, they're no longer, they're no longer [sic] beneficial to us....many of those things over time have been displaced, or been destroyed and not replaced.*

*Deputy principal's response: What happens in the TVET area for IA (Industrial Technology) is that the teachers would have invested in a lot of the equipment so they would bring them to school with them. Students get to utilize them, and then they take them back home. So that's a positive; teachers, as usual, you know, using their own monies to invest in students.*

Apart from the physical resources required, challenges with the training of TVET teachers were discussed as inadequate. A failure to produce qualified teachers in this area will certainly curtail schools' ability to offer these subjects and the number of students who can pursue them:

*Teacher's response (focus group interview #1): And I know someone who wanted to do the TVET program because she teaches Home Ec., but for years now, they have not had the TVET program running at State College. So she gone [sic] and do Social Science [sic] and Business. She doesn't want to do it, but she needs to get the teacher training certificate.*

The costs associated with doing a TVET subject at the secondary school level were also raised as an impediment as indicated below:

*Teacher's response (focus group interview #2): I don't think the kids think about the cost; they just know they want to do Foods [sis] and down the road in fourth and fifth form, they realize the cost attached to it. Some of them drop out, they just can't complete it. The government helps out with the SBAs, but the practicals leading up to that are costly.*

*Principal's response: For some, in particular, those who may be doing more than one technical vocational area, because I have had parents who have expressed concerns...And then for those who are also doing Family and Resource Management and Foods, you may find that then you're doubling almost the cost associated with, you know, with the children's involvement in those technical vocational areas.*

Another issue that came to the fore during the research process was that of a lack of TVET standards:

*Teacher's response (focus group interview #1): CVQ was supposed to be introduced in Antigua so long ago. Antigua was supposed to be ahead of the game with CVQ in the OECS countries. What happened? It fell by the wayside. We don't have a National Training Agency. Well, one is there but it's not up and running.*

*Principal's response: They must recognize that within the whole structure of our academic qualification, there is a description that says, if you have this qualification in TVET, you're qualified to receive a pay equivalent to this person who may have this particular academic qualification. So the national qualification framework, I think, must be properly established and adopted by all so that we can bring into the zone as well, those who are pursuing technical, the technical related fields.*

Students' exposure to practical experience or industrial training is another significant impediment that was identified as it affects the transition from school to the world of work:

*Principal's response: It makes very little sense for us to be offering these very important courses in school. Yet the students have never been able to sit and form and form a piece of furniture on a lathe, for example. Yet you say that they have completed a full course, they aren't able to sit and say that they've welded two pieces of steel together, because you don't have the welder.*

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## Benefits

This theme was highlighted as participants identified some areas in which TVET careers can improve the lives of individuals as well as the nation as a whole. Our subthemes are mentioned below:

- Entrepreneurship
- Enhanced skill set of nationals

Many of the academic staff and parents were of the view that individuals who possess skills within the TVET area have good prospects of becoming entrepreneurs. They felt that entrepreneurship would allow these individuals to make a better living than being employed by an organization. Some of these views are expressed below:

*Principal's response: And so we have to begin to, we have to begin to view TVET as a means of diversifying our economy, we must view TVET as a means of liberalizing our workforce, releasing some of the burden on the government to hire so many persons, persons whose workforce clearly that it cannot sustain very well. And so we are looking towards entrepreneurship. You see, the bedrock I think of an economy benefit of an economy is, you know, our small and medium businesses. And so many of all youngsters, if they have the right sort of guidance, right sort of skill set, and the enabling environment to promote their full involvement in TVET-related fields. They're either able to work on their own or they're able to form partnerships and, you know, produce very high-quality goods that can sustain the local market. And then we look beyond the local market to, you know, the possibility for wider engagement in the OECS and CARICOM and even further afield if necessary. But again, the right enabling environment must be there to facilitate that.*

*Parent's (#6) response: I used to make \$900 per week working for people, but now I can make that in a day or two [being self-employed].*

Several participants stated that an advantage of having a robust TVET system in place is that of having a skilled and competent workforce who can deliver a high standard of work. This would improve the competitiveness of skilled Antiguan workers who can also seek employment throughout the region under the umbrella of the CARICOM skilled nationals' right to work across the region. Below are some insights which were provided:

*Teacher's response (focus group interview #1): I hope that they set up the National Training Agency properly so that persons who are leaving from school or even going on further, they can [sic] get the proper qualification so that they can go out and not only work in Antigua, but work throughout the Caribbean with the proper documents.*

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*Teacher's response (individual interview): They're not enough technical people in Antigua. They're not enough persons here who cut copper and they send [sic] it away, and they make good money. But persons have been coming in. I know from Guyana, I can tell you this firsthand. They have brought persons from Guyana to cut copper here to be exported overseas.*

### **Influencers**

Several factors which impact students' subject choice were unearthed. Most of these factors are not limited to selecting TVET subjects but to general subject choice. We were able to categorize several sub-themes as shown below.

- Parents
- Peer pressure
- Likability of teacher
- Perceiving a subject as being 'easy'
- Students' interests
- Limited subject options
- Career guidance provided

The influence of parents and other family members was one factor that was identified as the main factor in influencing students' subject selection. Based on the responses, it must be noted that parental influence is not limited to words of advice, but in some cases, it was highlighted as students wishing to engage in the same careers as their parents. Participants' responses are provided below:

*Principal's response: Several students who may select a TVET related subject, particularly the building technology, and so forth, some viewed it as oh you know, they're coming here and getting dirty, and especially when the girls expressed a desire to do it, sometimes we have to counsel the parents to get the parents to recognize that there is something in this and you should allow them to explore the full potential of this of being involved in this particular course. Very many of our parents also accepted that having a skill is critical.*

*Teacher's response (focus group interview #1): I've seen a situation where there are a number of students who actually focus because somebody in the family does that as a career; something within that area. And I'm not gonna [sic] lie, it is very strong in the Spanish, our Spanish community, when they come to TVET, they are already focused on becoming engineers, architects, contractors, something of the sort because somebody in the family does it. And they have gotten introduced to it, they take them along with them sometimes, sit them and show them this is what I do, they give them the financial viability.*

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*And so they gravitate toward it. And I'm telling you, over the years, the better passes have come from the Spanish community.*

The influence of peers was another significant influencer in the subject choice that participants pointed out. See teacher responses below:

*Guidance counselor #1 (individual interview): I've seen where a child may not be particularly good at a subject, but because their friends or most persons doing it, you know, they force themselves or put pressure on to be allowed to go into that particular area.*

*Teacher's response (individual interview #2): the impression I get is that they choose it, most times because their friends might be doing it. Another thing I picked up too is that they choose subjects, not based on the career choice, but they just choose, as I said, because of friends.*

An interesting discovery was that the likability of teachers was stated as being a major determinant of students' subject choice. The following responses are a snapshot of several responses from academic staff:

*Teacher's response (individual interview #3): I think the teacher has a great influence; if they don't like the teacher, they're not going to choose a subject even though they really want to do it.*

*Deputy principal's response: What I've noticed with the subject selection process is that it is very much motivated by who teaches the subject. So if a particular teacher teaches a particular subject offering or a particular group and they think that that teacher will have the same group, you'll find the students gravitate into the subject because of the teacher. So we also have instances where because a particular teacher teaches certain subjects, students are not opting for those subjects because they know it's that one teacher that they'll have at fourth and fifth form.*

Students' subject selection in some cases is guided by the perceived level of difficulty associated with undertaking some subjects:

*Teacher's response (individual interview #12): They just choose it based on what's easy, or what they can get an easy pass in.*

*Guidance counselor #2 (individual interview): Take for example, some students choose music, believing it's an easy subject, right. But then music in terms of the CXC level, it have [sic] components that I know for a fact that they have to create a piece for themselves.*

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*And they struggle with these different things because they're not realizing that with music, you need to be practicing every day.*

The overwhelming majority of parents indicated that they allow their children to select the subject they wish to pursue. This represents a disparity of views as several teachers stated that parents play a major role in the process. Below are the responses to the question asking how much guidance they provide to their children in the subject selection process:

*Parent (#3) response: I asked him what he would like to choose based on what he would like to do after secondary school. I pretty much think he chose what he likes doing and I guided him into that.*

*Parent (#4) response: I don't really guide them because sometimes when you tell children you want them to do some certain things, they are not for it. I allow them to choose what they feel comfortable with so they will more excel [sic] in that.*

*Parent (#7) response:...even if they tell me what they want, I try to watch them to see what interest is, you know, where their interests lie, or how capable, they are at certain things or, you know, some children just have, like, they're born with a certain skill, or talent. I guide them in the way that I see the talent going.*

The issue of limitations placed on students when selecting subjects was discovered via document analysis. The school makes available option selection sheets for third and fourth formers with two sheets per level. One sheet per level is created specifically for students with learning challenges who generally do fewer subjects than the others. There are no sheets for the fifth form as students usually carry across the same number and combination of subjects from the fourth form. Based on the option selection sheet, students are restricted when choosing subjects based on the number and combination of subjects they are allowed to choose. Table 3 provides a snapshot of the subject offerings. The issue of restrictions in subject choice was also addressed by a parent during the interview process:

*Parent (#7) response: Sometimes you're not really free to choose exactly what you want because it all depends on what you have to choose within a certain group. I remember when my son was choosing his subjects, he wanted to do Music, but because of where Music was, and he [sic] needed Physics, also, he had to choose Physics over Music, and you would have loved to do both.*

The level of career guidance provided to students was another factor identified as influencing subject selection. Below is the principal's response during the interview process to the question of how the school engages students on the topic of career choice:

*Principal’s response: “Admittedly there isn’t a very firm structure for advising on career choice. We have from time to time established career fairs, where the children are able to interact with professionals in various fields, who would naturally give them a sense of the academic qualifications that are required for work in those particular fields as well as provide them with an understanding of the critical responsibilities that fall on the various professions that we are highlighting at the time. Within the context of the curricular area, we generally encourage each teacher to give as part of the overview of the course at the point of introduction, just inform students speaking of, you know, the career choices that may be available, if they choose to undertake a particular course of study.”*

The document analysis discovered that the guidance counselors utilize a booklet entitled ‘The Career Key- Caribbean Edition’ to guide and inform students on career choices. The key aligns students’ aptitudes, talents, skills, and other traits with personality types. The Career Key also suggests possible careers based on students’ characteristics and recommends steps students can take to begin planning ways to achieve their goals. The key’s influence can be said to be limited as it is only used during the first two years when students may not be able to fully understand concepts such as personality traits and how these can be linked to one’s career path. Furthermore, this document is not shared with parents so that parents can grasp the concept and better guide their children.

All of the factors and influences unearthed are significant as they shed light on what guides students’ subject choice and career path, to some extent.

**Table 3**

*Subject options*

Subjects	Third form options	Fourth form options
Agriculture Science	<input type="checkbox"/>	<input type="checkbox"/>
Biology	<input type="checkbox"/>	<input type="checkbox"/>
Building and Furniture Technology	<input type="checkbox"/>	<input type="checkbox"/>
Chemistry	<input type="checkbox"/>	<input type="checkbox"/>
Electrical	<input type="checkbox"/>	<input type="checkbox"/>
Electronic Document Preparation and Management	.	<input type="checkbox"/>
English Language		

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English Literature		<input type="checkbox"/>
Family and Resource Management	<input type="checkbox"/>	<input type="checkbox"/>
Food, Health and Nutrition	<input type="checkbox"/>	<input type="checkbox"/>
French	<input type="checkbox"/>	<input type="checkbox"/>
Geography	<input type="checkbox"/>	<input type="checkbox"/>
History	<input type="checkbox"/>	<input type="checkbox"/>
Human and Social Biology	.	<input type="checkbox"/>
Information Technology		<input type="checkbox"/>
Integrated Science		<input type="checkbox"/>
Mathematics		
Mechanical Engineering	<input type="checkbox"/>	<input type="checkbox"/>
Music	<input type="checkbox"/>	<input type="checkbox"/>
Office Administration	<input type="checkbox"/>	<input type="checkbox"/>
Principles of Accounts	<input type="checkbox"/>	<input type="checkbox"/>
Principles of Business	<input type="checkbox"/>	<input type="checkbox"/>
Physical Education	<input type="checkbox"/>	<input type="checkbox"/>
Physics	<input type="checkbox"/>	<input type="checkbox"/>
Social Studies		<input type="checkbox"/>
Spanish	<input type="checkbox"/>	<input type="checkbox"/>
Technical Drawing	<input type="checkbox"/>	<input type="checkbox"/>
Textile, Clothing and Fashion	<input type="checkbox"/>	<input type="checkbox"/>
Theatre Arts	<input type="checkbox"/>	<input type="checkbox"/>
Visual Arts	<input type="checkbox"/>	<input type="checkbox"/>

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*Note.* Key: Offered individually     Grouped    . Not offered.

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## Discussion

Our work contributes to the literature on TVET as we discussed pertinent issues relevant to selecting choices when choosing a career. There is a dearth of research on TVET within the developing world, especially in Small Island Developing States (SIDS). SIDS have a shortage of research capacity, and these developing states do not produce many scholars, where expertise is often limited (Mijts, Rens & Buys, 2019).

Aldossari (2020) revealed that in Saudi Arabia, a large proportion of the society refuses to engage in these careers because they are viewed as culturally unacceptable even though the demand exists for technical workers. There is still a significant stigma attached to TVET careers and those who opt to do the related subjects in high school (Aldossari (2020)). Several teachers indicated many students avoid TVET as a career choice. Stigma is not unique to Antigua and Barbuda only. A study tour was done in Germany (Mack, 2015), where many skilled trades professionals indicated a significant stigma attached to TVET and required effort from key stakeholders. Additionally, research from Trinidad and Tobago (Mack & White, 2019) highlighted difficulties with TVET due to its stigma.

Inadequate resources is another challenge faced. Our research revealed several challenges related to the available resources required for instruction. This research uncovered that a lack of resources has influenced teachers to use their personal tools and equipment for instruction, to ensure students acquire the necessary knowledge and skills. According to Kemevor and Kassah (2015) a lack of adequate resources may impact the teachers' ability to deliver effective instruction. Additionally, school equipment is outdated, and other resources the government supplies are often delivered late. The school, in many cases, has to pay for the help; some departments even engage in fundraising activities to maintain supplies. The shortage of equipment can be seen as a factor that limits students who may be less inclined to choose TVET subjects if they are aware that resources are unavailable or limited.

The costs associated with purchasing and maintaining equipment at TVET facilities significantly hinder the execution of such programs (Arthur-Mensah & Alagaraja (2013)). TVET-related subjects may incur significant financial contributions from the government to manage and run some issues, mainly due to the practical and hands-on nature of TVET. Lack of funding can hinder the overall human resource advancement of TVET and the nation (Mack and White, 2022). Spending money on TVET can aid in mitigating inequality and poverty as well as contribute to the United Nations Sustainable Development Goals (Hanni, 2019). When TVET models are established, they can contribute to highly skilled workers (Wolf and Erdle, 2009). TVET allows for instruction centered on attaining basic competence and skills so that graduates can effectively perform tasks once they enter the workforce (Zhang, 2009). Thus, the focus should not only be on the theoretical aspects, as this limits their capabilities. In our work, students were limited in their

ability to engage in practical experiences. Students are not provided with experience within a workplace environment that would facilitate applying theory within the real world, as the leading school administrator lamented during the interview process. The curriculum of many TVET programmes is not aligned with the needs of the job market (Nooruddin, 2017; Amendormu & Fiagbe, 2013). Furthermore, this non-alignment is often the source of limited opportunities for apprenticeship (Amendormu & Fiagbe, 2013, Dos Santos, 2019).

Another challenge is inadequate TVET standards. The national entity that is entrusted with certification has not done its part to ensure persons are certified, thus failing to contribute to the country's human resource development. TVET programs in Antigua at the high school level do not offer certification such as the Caribbean Vocational Qualification (CVQ). The post-secondary institutions such as the ABHTI and ABICE do offer certification; however, they do not offer CVQ or any other regionally accepted form of qualification. This results from the National Training Agency not issuing the National Vocational Qualifications even in cases where the post-secondary institutions are following the CVQ standards for instruction. Akhuemonkhan & Raimi (2013) support the notion and assert that implementing quality assurance mechanisms is necessary to ensure the quality and standards are maintained within these programmes.

TVET provides an enhanced skillset, which, when combined with entrepreneurship (Mack et al, 2021), can contribute to economic development. Little is said about merging TVET and entrepreneurship, which can benefit society economically (Mack and Honig, 2022). Graduates who attain TVET certification tend to attract higher wages and have increased chances of securing full-time employment (Edwards & Winkelmann, 2002; Ryan, 2002). Ensuring qualifications can improve the marketability and competitiveness of nationals within the local job market and the region. Entrepreneurship encourages the innovation necessary for countries, mainly those dependent on their natural resources or environment, to diversify their economies (Okorafor & Ike, 2013). Sunyoto & Setiyawan (2021) echo similar sentiments by contending that entrepreneurs should play a vital role in developing nations due to their creativity, innovativeness, and propensity to take risks. Suppose this perception begins to permeate Antiguan society. In that case, one can suggest that students' interest in a TVET career path will be heightened, and more will actively pursue such courses of study and careers.

According to Nawabi et al. (2019), parental guidance is critical in children's career choices across all genders and races. This research uncovered a disparity between the teaching staff and parents' views on this issue. Teaching staff contended that parental influence is a significant factor in students' subject selection. They asserted that parents often reach out to the administration to make changes to the children's subject choices, as indicated in the findings that some parents did not want their children to pursue TVET-related subjects. On the other hand, all parents stated that the choice of subjects is solely up to their children. This disparity may have occurred due to the small sample size of parents and indicates that parents are open to having their children pursue their

interests. However, the teachers' position is that parents attempt to dissuade children from pursuing TVET subjects which hold more credibility than the parents' claims since teachers are responsible for hundreds of students. Teachers' expertise should be valued compared to parents whose focus is only one child. In addition, parental influence can be linked to the variable of subjective norms of the theory of planned behaviour. Subjective norms speak to the approval of essential persons in someone's life, influencing his or her behaviour. Thus, parental influence can be said to have a direct effect on students' subject and career choices, as reflected by this study's findings. We found the influence of peers played a factor in students' selection of subjects for school. A large number of the academic staff opined that students choose subjects based on what their friends selected. Owusu et al. (2021) propound that students' subject and career choices and how they learn are all influenced by the opinions and behaviour of their peers.

Similarly, Naz et al. (2014) argue that the influence of peers is undeniable, even while acknowledging that parental influence also plays a significant role in this issue. The effect of family and friends is a positive development which may be a social influencer (Mack and Honig, 2022). Many leading scholars supported the importance of social support (Klyver, Hoing and Steffens, 2018; Carolis, Litzky, & Eddleston, 2009; Hoang & Antoncic, 2003; Davidsson & Honig, 2003; de Carolis & Saporito, 2006; Gedajlovic, Honig, Moore, Payne, & Wright, 2013 and Honig & Karlsson, 2010) in its role in modeling persons into entrepreneurs and which may be of great value to students in selecting a career path.

The likability of teachers being a factor in students' subject selection was surprising. Interests have become a critical factor in determining choices and as interests evolved, so too does the rationale for making a career choice (Eremie & Chiamaka, 2019). The research revealed that many students made choices based on their perception of teachers' personalities. Therefore, it can be deemed a perceived behaviour control based on TPB, as this factor may prevent a student from selecting a particular subject. Moreover, this indicates that the school ought to offer better career guidance so that students can grasp a better understanding of the value of careful subject selection since not all students may view a particular teacher in a favourable light. Students' interest can be linked to the 'attitude' variable of the TPB, which refers to an individual's positive or negative feelings towards a situation. Thus, students are more likely to select a TVET or any other subject if that is an area of interest. However, it must be noted that interests are learned from parents, in schools, friends and lifelong experiences (Eremie & Chiamaka, 2019).

The school's guidance counselors provide instruction for the subject called 'Life Skills' across first and second forms, but not at levels three to five. The other general school effort at providing career advice is the annual career day and when the fifth formers are engaged in a seminar providing similar advice in the second term of their final year. Mtemeri (2017) argues that school career guidance provides students with a better understanding of career-related issues, such as the subjects they should pursue to achieve career goals. The author further contends that the school is

the ideal environment to communicate such issues with students as linkages with theoretical knowledge can be made with practical, work-related tasks and roles. However, it can be suggested that the school's effort at offering career guidance is limited since the subject, 'Life Skills,' which addresses such topics, is not taught at levels three to five. These students are, therefore, at a disadvantage since this is a critical juncture in their lives where they begin to align subject choices with their intended careers. In addition, as stated by the principal, the school's efforts, such as the annual career day, are insufficient to provide career guidance. For instance, uncommon careers or a limited number of professionals in Antigua may not receive representation. Thus, students' interests in some areas may not be piqued as they are unaware of their existence.

### **Conclusions**

The research set out to determine the factors that influence students' decision to choose a TVET-related career path in Antigua and Barbuda. This study utilised a qualitative approach with interviews and document analysis being the two data collection methods. Three major themes emerged at the end of the data analysis process: challenges, benefits, and influencers. Stigma, inadequate resources, cost, lack of TVET standards, training of TVET teachers, and lack of practical experience were the subthemes generated from the major theme, 'Challenges.' These factors were found to negatively impact students' choice of TVET subjects since they may dissuade a student from pursuing a TVET subject. For instance, it was revealed that teacher availability can limit the number of students who can pursue these subjects if sufficient teachers are not trained in these areas. Additionally, the negative public perception was identified as a factor that makes students and parents reluctant to pursue TVET subjects and careers. Additionally, the absence of an apprenticeship program means that students are not allowed to gain practical experience which would bridge the gap between school and the world of work. The absence of nationally accredited qualifications also affects students' level of employability and competitiveness. The sub themes of entrepreneurship and gaining an enhanced skill set were formulated from the major theme, 'Benefits.' Many of the academic staff and parents viewed engaging in TVET careers as a pathway to entrepreneurship which can be deemed a factor that would positively influence students in selecting TVET subjects and careers. TVET courses being able to enhance students' skill sets and improve their employability are advantages of pursuing TVET that may drive students to choose these areas. Based on the findings, one can conclude that the TVET courses at the secondary school level are not meeting the needs of students. Many of the factors identified are negatively impacting students' abilities to pursue TVET-related subjects and careers which provide an avenue for the economic development of Antigua and Barbuda via entrepreneurship and enhanced employability and competitiveness of graduates. Despite some arguing that there is now reduced stigma surrounding TVET and some benefits being uncovered, the systems to support the development of TVET are lacking. The NTA must adopt relevant

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standards and begin to offer accredited certification to drive this development and give legitimacy to the courses of study undertaken by students.

Parents, peer pressure, the likability of teachers, students perceiving a subject as being easy, students' interests, limited subject options, and career guidance were the sub themes formulated from the 'Influencers' theme. The findings showed that parental influence, peer pressure, students' interests, and students perceiving a subject as being easy are all factors which influence students, thereby, answering the main research question.

### **Limitations**

The study was confined to one school to gather data, whereas multiple schools would have provided comparable data and perhaps different perspectives. Interviewing or gathering research from the students would have given us a better understanding of how students are influenced, which would have given us their perspective. Future research can possibly explore this and look further into the students' perspectives. Notably, there is a lack of prior, published research in the Caribbean as well as Antigua and Barbuda on this topic, which limited our ability to garner rich insights from a Caribbean perspective. Others have highlighted a lack of research in general within Small Island Developing States (Mijts, Rens and Buys, 2019). We did not utilise member checking as we were confident the steps taken in creating the interview questions and transcription were rigorous. In order to ensure rigour, qualitative researchers devote considerable time to developing interview guides, consent forms and coding frameworks (McMullin, 2021).

### **Recommendations**

TVET is a social and economic proponent known for mitigating difficulties in developing economies and is a favorable factor in building social and economic capacity among low-level workers (Buli & Yesuf, 2015). Thus, the need to focus on TVET by introducing solutions geared towards the advancement of TVET. Firstly, an active National Training Agency (NTA) that will promote skills training and ensure institutions manage and execute TVET programmes with efficiency and effectively based on regional and international education standards. This ranges from the soundness of the curriculum to the quality of instruction and teachers. Sebola (2022) argues that TVET institutions must have effective standards of competencies for both students and faculty to produce graduates with a level of expertise corresponding to that of higher education graduates. An apprenticeship programme should be integrated into the TVET curriculum of all secondary schools. This would facilitate students acquiring the practical skills needed to make the transition from school to the world of work easier. Ryan et al., (2013) expressed that the TVET system needed reform that would play a vital role in advancing the vision for sustainable

development, which can be said for Antigua and Barbuda. According to Molz (2015), well-designed apprenticeship programs are critical in equipping students with skills that are in demand, enabling the transfer of complex skill sets, enabling companies to meet immediate and future staffing needs, and making TVET programmes more responsive to the skills shortages and mismatch that may exist in various industries. The government must ensure that schools are equipped with adequate tools and equipment to facilitate instruction. According to Bakri & Zakaria (2018), a functional workshop with the right tools, equipment, and machines is a key requirement to facilitate the effective instruction of TVET programmes. This would improve coverage of the content as students would be able to have practical experience with the tools they are learning about. This would also facilitate a better transition from school to the world of work as it would reduce the learning curve once graduates secure employment. Finally, schools should be more involved in providing career guidance so that students make subject choices from a more informed position. According to Mtemeri (2017), schools are in an excellent position to communicate these issues with students as the interconnection of job-related roles can be integrated with theory to address these real-life issues. Thus, career guidance is critical in helping students when choosing their professional career based on their strengths, weaknesses, resources and opportunities (Yeap et al., 2021).

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## **Appendix A**

### Sample interview questions for parents

1. How much guidance do you give your child in subject selection?
2. How important is it for the subjects a child chooses in high school, to be related to a particular career that he or she wishes to pursue?
3. What are your views about parents who encourage their children to take a TVET subject?
4. What other sources do you consult in helping your child to select subjects?
5. Which subjects do you believe are essential?
6. What TVET subjects were you interested in pursuing while at school?
7. What are your views about parents who encourage their children to pursue a TVET-related career?
8. What type of views has your child ever expressed an interest in pursuing such a career path?
9. When you were growing up, what was your view of persons engaged in TVET careers? How were those persons viewed by the community?
10. How important is it for parents to assist children financially in furthering their studies post-high school?
11. Can you please tell me about some of the institutions in Antigua where students can pursue TVET-related courses after graduation?
12. What are your thoughts about the quality of education provided by these institutions?
13. What are your views about the salary/wages earned by those who pursue TVET careers versus those in non-TVET jobs?

## Appendix B

### Sample subject selection sheet

#### THIRD FORM OPTIONS – 1

1. Mathematics
2. English Language
3. English Literature
4. Social Studies
5. Integrated Science
6. Information Technology
7. Principles of Accounts/ Technical Drawing (1)/ Theatre Arts/ Biology/ History/Physical Education (1)
8. Food, Nutrition and Health (1)/ Textile, Clothing and Fashion (1)/ Family and Resource Management (1)/ Mechanical Engineering (1)/ Building and Furniture Technology (1)/ Office Administration (1)
9. Geography/Chemistry/ Principles of Business (1)/ Agricultural Science/ Visual Arts/ Music
10. Food, Nutrition and Health (2)/ Textile, Clothing and Fashion (2)/ Family and Resource Management (2)/ Electrical/ Physical Education (2)/ Principles of Business (2)
11. French/ Spanish/ Physics/ Office Administration (2)/ Physical Education (3)/ Technical Drawing (2)

NO	Options (a)	Options (b)
7		
8		
9		
10		
11		

#### PLEASE NOTE CAREFULLY

- Each selection must be clearly written in the space provided
- All students must choose one subject from each subject grouping shown. No subject cannot be chosen twice.
- It is recommended that students doing Building and Furniture Technology, MET or Electrical MUST do Technical Drawing.
- All students doing Performing Arts (Music and Theatre Arts) should join at least one extra or co-curricular activity – Drama, Fan or Choir.
- Students will not be allowed to make changes to subject selection after two weeks from the start of the term. The "subject dropping" process MUST be followed.
- The decision to allow students to write the subjects they have chosen at CXC will be made by the teacher and will be based on the following:
  - o Students' attitude to the subject
  - o Students' performance in the subject
- Students in Stream One (1) must do CHEMISTRY, PHYSICS and BIOLOGY and ONE foreign language. They should therefore make a choice (b) or (c) on the option line. Students in this stream are determined by performance, all other students are placed randomly into classes. They will have the option of dropping them in fourth form if desired.

## Appendix C

### Extract from The Career Key Guide

**STEP 2** **CONSIDER JOBS YOU LIKE & DISLIKE**

Go to the group of jobs for each personality type below and:

- Write a '2' in the box next to those that absolutely interest or attract you in some way.
- Write a '1' in the box for those that might interest you.
- Write a '0' in the box for any that you would definitely dislike.

As you finish each group, add up the numbers you have written for each job and put the total in the total box at the bottom of that group.

<p><b>REALISTIC</b></p> <p>Writer <input type="checkbox"/></p> <p>Bus driver <input type="checkbox"/></p> <p>Mechanic <input type="checkbox"/></p> <p>Farmer <input type="checkbox"/></p> <p>Carpenter <input type="checkbox"/></p> <p>Artist <input type="checkbox"/></p> <p>Plumber <input type="checkbox"/></p> <p>Engineer <input type="checkbox"/></p> <p style="text-align: right;">Total <input type="text"/></p>	<p><b>INVESTIGATIVE</b></p> <p>Written proposal <input type="checkbox"/></p> <p>Chef/cook <input type="checkbox"/></p> <p>Apprentice <input type="checkbox"/></p> <p>Administrative <input type="checkbox"/></p> <p>Secretary <input type="checkbox"/></p> <p>Mathematician <input type="checkbox"/></p> <p>Computer programmer <input type="checkbox"/></p> <p>Scientist <input type="checkbox"/></p> <p>Medical doctor <input type="checkbox"/></p> <p>Researcher <input type="checkbox"/></p> <p>Analyst <input type="checkbox"/></p> <p>Accountant <input type="checkbox"/></p> <p style="text-align: right;">Total <input type="text"/></p>	<p><b>ARTISTIC</b></p> <p>Creative designer <input type="checkbox"/></p> <p>Dancer <input type="checkbox"/></p> <p>Musician <input type="checkbox"/></p> <p>Network system <input type="checkbox"/></p> <p>Advertising <input type="checkbox"/></p> <p>Actor <input type="checkbox"/></p> <p>Designer <input type="checkbox"/></p> <p>Architect <input type="checkbox"/></p> <p style="text-align: right;">Total <input type="text"/></p>
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**STEP 3** **SCORING**

By now you should have 2 sets of totals from Steps 1 & 2. Add these totals downwards and put the sum in the GRAND TOTAL boxes.

	REALISTIC	INVESTIGATIVE	ARTISTIC	SOCIAL	ENTERPRISING	CONVENTIONAL
PUT STEP 1 TOTALS HERE >>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
PUT STEP 2 TOTALS HERE >>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
GRAND TOTALS >>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

**STEP 4A** **FIND YOUR PERSONALITY TYPE**

Look carefully at each of your grand totals above. The highest score indicates your strongest personality type.

Most people are a blend of 2 or 3 personality types. You may have three or more if you have high scores.

Review your scores and answer the questions below:

1. What is your main personality type (the highest of your grand totals)? You can write more than one if you have high scores.
2. What are the other two personality types for which you have 3rd and 4th highest grand totals? Write more than two if you have high scores.

You can use the Grand Totals in Step 3 to create a bar graph in Step 4B. Start with

**Scoring for STEP 2** Go to page 6, Scoring Section. Put the totals you have for each personality type in Step 2 below the matching personality type. Follow Step 3 instructions to make grand totals.