



Report

# Baseline survey on the school-to-work transition of technical and vocational education graduates in Mozambique

Relatório do inquérito de base à transição ensino-emprego dos graduados do ensino técnico-profissional em Moçambique

Maputo  
April 2020



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# Report on the baseline survey on the school-to-work transition of technical and vocational education graduates in Mozambique

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Maputo  
20 April 2020

## **Preface**

The research detailed herein was planned and implemented by researchers at the United Nations University World Institute for Development Economics Research (UNU-WIDER), the Development Economics Research Group (DERG) at the University of Copenhagen (UCPH), the Centre for Economics and Management Studies (CEEG) at Eduardo Mondlane University (UEM), and the Labour Market Observatory of the Ministry of Labour, Employment and Social Security (MITESS).

This study forms part of the programme entitled *Inclusive Growth in Mozambique – Scaling-up Research and Capacity*, funded by the Danish Ministry of Foreign Affairs (DANIDA), the Finnish Ministry for Foreign Affairs (MFA) and the Norwegian Ministry of Foreign Affairs.

We are grateful for the support and assistance of Edson Mazive, Ivandra Viera, Gimelgo Xirinda, Jorge Mouco, Gerson Paris, Silvana Mondlane, Eva-Maria Egger, Elina Penttinen, Anette Camorai, Silvestre Matola and Salipi Nhaca.

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## Executive Summary

### Main Results:

- In 2019 we implemented a survey of 1,639 final year students of intermediate (medium) level Technical and Vocational Education and Training (TVET) institutes in Mozambique (equivalent to secondary school), covering all regions of the country and a diverse range of courses.
- This report summarizes the data collected in the baseline survey. The same students will be traced over the course of 2020 as they enter the labour market or continue to further their education. A final report will be prepared after the one year follow-up period.
- The profile of sampled TVET students reveals significant gender differences across areas of study. Whereas Industrial and Agricultural study areas are male dominated, comprising 80% and 57% men respectively, the study area of Services is female dominated, with 60% of students being women.
- TVET students come from households with education levels that are higher than the national average: 74.3% of students had at least one parent with secondary school education or higher, and 27.3% have at least one parent with higher education. But there is some upward mobility. For 24.5% of the finalists, graduating from a medium-level TVET institution would imply they had obtained a higher level of education than either of their parents.
- The majority of TVET students come from households where the main source of income is waged work in the public or private sector. There are notably more agriculture students, 27.9%, from households where self-employment in agriculture is the primary source of income. This suggests some 'pipeline effect', whereby students from agricultural households are more likely to want to work in agriculture in the future. Furthermore, Agriculture students come from households with slightly lower education levels when compared to the other subject areas.
- Student satisfaction was generally quite high: on average 72% of finalists would choose the same school again, and 90.3% would choose the same course again. However, student satisfaction is notably lower in private schools: only 50.0% of Industrial students and 60.3% of Services students at private schools would choose to attend their school again.

**Main Results:**

- The costs associated with attending TVET school are non-negligible, at around 2,000 MZN / month for public schools, and 5,000 MZN / month for private schools. These differences in costs primarily reflect the type of institution, not the course. Assuming differences in employability and wages between courses, this would imply large differences in returns to education across courses (even within the same institution).
- Students identified many obstacles in their learning environments, the largest being access to equipment needed for their course. When students were given the opportunity to state what they would invest in to improve their school, 76% of students voted for investment in better equipment.
- Students in Agriculture courses were most likely to identify severe obstacles in their learning environment across all dimensions measured. Over a third of Agriculture students stated that there were severe obstacles concerning access to equipment, teacher's technical knowledge, teacher motivation and absenteeism, and equipment quality.
- Many finalists (73.5%) had already undertaken some form of work experience, be it paid work, or an academic or professional internship. However, there are significant gender disparities here. Whereas only 18.9% of men are graduating without prior work experience, this rises to 37.2% of women. While this partly reflects differences across study areas, such gender disparity may well put women at a greater disadvantage as they enter the labour market.
- Maputo City (MC) has by far the fewest students that have completed internships. Only 18.6% have undertaken an academic internship, compared to at least 50% in all other provinces. This is mainly driven by a lack of internships in the Services sector in MC (only 7.8% of Service students in MC had done an internship). The mismatch between supply and demand in the capital is a serious concern, not only because internships can be a requirement to complete their course (especially under the new modular system) but also because this can be a route to find employment. (The follow-up survey will shed further light on this.)
- The vast majority (8 in every 10) TVET finalists plan to enter the labour market in 2020, either through finding an internship, continuing in an existing job or finding new employment. With a handful of exceptions, the remainder wish to continue studying.

**Main Results:**

- TVET students are open to entrepreneurship as a potential pathway to work: 66.9% would consider starting their own business and 16.2% would consider undertaking informal self-employed work (known as *biscates*).
- Most students expressed a degree of uncertainty in entering the labour market, with 52.3%, stating they could not predict how long it would take them to find a job after graduating.
- In their first job after graduation, TVET students expect to earn significantly more than the minimum wage. Expected wages varied across province and subject area. Comparing between provinces, the highest wages expected by students of Services courses were in Maputo City (15,000 MZN / month). Among students of Industry courses, in all provinces except Maputo City students expect to earn more than 18,000 MZN / month; but in Maputo City they expect to earn just 15,400 MZN / month. The highest expected industrial wages are in Tete at 19,800 MZN / month.
- For Services and Industrial students, there is a notable gender gap in expected wages: female students expected to earn around 2,000 MZN / month less than men in their first job after graduating. This was not true for Agriculture, where women expected to earn slightly more than men.
- In Services and Agriculture, the expected starting salaries given by students were notably higher than the earnings their teachers predicted would be available in the market (for the same students). This mismatch is concerning as it suggests some lack of communication between teachers and students about the labour market in the classroom. However, for Industrial courses, teacher and student salary expectations were more in line.
- Overall, teachers estimated that by the end of 2020, 18.7% of the same cohort of students would be unemployed. This was highest for teachers of Agriculture, who predicted just over a quarter of their students would still be unemployed after one year of graduating.

# 1 Introduction

As in other countries, Technical and Vocational Education (TVET) in Mozambique provides an alternative to a general academic education. Historically, Mozambican students have been able to switch into the TVET system from the general education system (*Sistema Nacional de Educação*) at one of two points: either after seventh grade, by entering technical training at the Basic Level (*nível básico*), or after tenth grade, by entering at the (intermediate) Medium Level (*nível médio*). At the intermediate level, in focus here, courses usually take three years and are typically taken in place of the last two years of secondary schooling. The three year courses specialize students into a specific vocational profession, such as being an industrial electrician, whilst also continuing general education such as in Portuguese and Mathematics. In some instances, students can also elect to enter TVET institutions after having finished the standard twelfth grade, in case they are able to complete a Medium Level technical training in a shorter time frame.

In the early 2000s, Mozambique began a long process of reform of its technical and professional education system. In 2001, the Government approved a new 10-year TVET strategy (*Estratégia do Ensino Técnico-Profissional em Moçambique 2002–2011*). In 2006, motivated by concerns regarding both the quality and coverage of the existing training system, the World Bank launched a 15-year project (*Reforma da Educação Profissional*), the first phase being known as PIREP (*Programa Integrado de Reforma da Educação Profissional*). The over-arching objective of the reform programme was to improve the quality, relevance and responsiveness of the TVET system to labour market needs ([World Bank, 2006](#)). This has involved a focus on improving the overall governance/regulatory structure of the system, developing a competency/standards-based curriculum, forging ties to prospective employers, and efforts to enhance quality.

Reflecting the process of reform, a new framework Vocational Education Law was passed in 2014, establishing a new regulatory authority, the National Professional Education Authority (*Autoridade Nacional de Educação Profissional, ANEP*), to regulate the landscape of providers and qualifications in the national TVET system. In 2017, the National Professional Education Fund (*Fundo Nacional de Educação Profissional*) was established to ensure sufficient and sustainable funding to the sector.

For students, a main upshot of these reforms has been the shift to a competency-based qualifications regime, introduced gradually over the past five years. This is composed of modular courses, with qualifications at different levels (CV3, CV4 and CV5) and replaces the ‘classic’

single-course regime of the past. Over time, the number of modular courses approved by ANEP has expanded.<sup>1</sup> Presently, all institutes *should* have phased-out the previous educational regime, implying all new entrants to the TVET system in 2020 should follow an approved modular course structure. Thus, at the end of almost two decades of reforms, a key motivation for the present study is to assess the degree to which current TVET finalists are now able to transition into the labour market. Indeed, following a similar study of the education-employment transitions of university graduates (see [Jones et al., 2018, 2019](#)), in 2018 the Minister of Labour and Social Security explicitly requested the same type of study be undertaken for TVET institutes. This not only underlines the importance of this kind of education in the government's approach to youth employment, but also indicates the scarcity of information regarding the kinds of employment outcomes students can realistically expect with an intermediate TVET qualification. To our knowledge, and aside from a few unpublished studies with only a small number of participants, no rigorous survey of this kind has taken place in Mozambique to date.

In light of the above, the aim of this study is to provide high-quality evidence on what happens to young people as they graduate from technical and professional schools and move on to further education or into the labour market. We focus on the system providing vocational training to young people in place of a general academic education, rather than shorter-term professional training to those already in work. In doing so, we seek to identify the degree to which a TVET education equips individuals with skills leading to employment, the time it takes for them to find work, and the quality of work they are able to find. Furthermore, we seek to discover systematic patterns in these outcomes across different courses, qualifications, providers and regions.

This report summarizes the baseline survey of TVET graduates, undertaken in 2019. During 2020, we are tracking the progress of the same students on a quarterly basis by mobile phone. A final report will be produced on the conclusion of the follow-up period.

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<sup>1</sup> The current list can be found here: <http://www.anep.gov.mz/QUALIFICA%C3%87%C3%95ES/Qualifica%C3%A7%C3%B5es>.

## 2 Methodology

### 2.1 Target population

As indicated in the Introduction, the target population of the survey comprises final year students of Medium Level TVET institutes as of 2019. According to numbers reported by the National Institute of Exams, Certificates and Equivalences (INECE) of the Ministry of Education and Human Development (MINEDH) in the *Jornal Notícias* (*‘Perto de 1.7 milhão vão a exame’*, 4th November 2019), a total of 15,796 students applied for final exams in their studies at Medium Level technical institutes in 2019. These numbers are very close to information contained in the latest administrative data reported by each school to the National Directorate of Technical Education (DINET), which we obtained and used in the sample design.

Due to the combination of logistical constraints and limited availability of a wide range of technical institutes in many parts of the country, it was not feasible to create a stratified random sample based on the universe of relevant technical institutes. Rather, we started by limiting the target population to students from the provinces of Maputo Cidade, Maputo Província, Nampula, Tete and Cabo Delgado. These were chosen to ensure coverage of all major regions in the country and permit the sample frame to contain a diverse range of colleges and courses. Together, these provinces contain close to 60% of all technical school finalists, including 39% of all students in courses related to Agriculture, 57% of all students in courses related with Industry and 66% of all students in courses related with Services.

Following the selection of provinces, we estimated the number of students that would need to be sampled to achieve sufficient statistical power by broad area of study (Agriculture, Services and Industry) within each province. These calculations are shown in Section 2.2 and are compared to the final (achieved) sample. Next, we established a list of eligible schools in each province (based on DINET data), covering the broad study areas of interest. However, as many schools have only a few courses or a small number of final year students, it was not feasible to randomly select from this list. Instead, we developed an algorithm to minimize the number of separate schools to visit in each province, while ensuring the sample requirements could be met (based on existing information on student numbers). As such, while the sample is not strictly representative of all TVET schools, our sampling strategy is effectively proportional to school size. That is, given the small number of Medium Level technical schools containing substantial student numbers, the study is representative of students attending the largest TVET institutes in each of

the selected provinces.

Within each selected school, we used our theoretical sample to determine the number of students and courses to include in the survey. The final list of institutes selected to participate in the sample is reported in Table 1; and Appendix Table A1 maps the broad study areas to selected courses, also indicating the type of education regime (classic or modular) and final number of students sampled in each case (across all schools).

Table 1: TVET Institutions in the sample

School	School Type
<b><i>Maputo City:</i></b>	
1) Instituto Comercial de Maputo	Public
2) Instituto Industrial 1° de Maio	Public
3) Instituto Industrial de Maputo	Public
4) Instituto CATMOZ	Private
5) Instituto Técnico Padre Prosperino Gallipoli	Private
6) Instituto Politécnico de Técnico e Empreendedorismo	Private
7) Instituto FOCO	Private
<b><i>Maputo Province:</i></b>	
8) Instituto Agro-Industrial de Salamanga	Public
9) Instituto Agrário de Boane	Public
10) Instituto Comercial e Industrial de Matola	Public
11) Instituto Industrial Armando Emilio Guebuza	Public
<b><i>Nampula:</i></b>	
12) Instituto Politécnico de Nacuxa	Community
13) Instituto Agrário de Ribáue	Public
14) Instituto Técnico Profissional e Aduaneiro (ITPAM)	Private
15) Instituto Industrial e Comercial de Nampula	Public
<b><i>Tete:</i></b>	
16) Instituto Médio de Geologia e Minas	Public
17) Instituto Médio Politécnico de Tete	Private
18) Instituto Industrial e Comercial Mártires de Wiryamu	Community
19) Instituto Industrial Dom Bosco	Community
<b><i>Cabo Delgado:</i></b>	
20) Instituto Industrial e Comercial de Pemba	Public

Source: authors' compilation.

## 2.2 Theoretical sample design

As noted above, in the design of the study it was necessary to calculate the dimensions of the sample. To do so, we followed Cochran (1977), who states that a sample of dimension  $n$  of a population  $N$  that allows inference with respect to a key issue, as in our case is the estimate  $p$  of the proportion  $P$  of recent TVET graduates who are employed, with a error  $d$  and a confidence interval of  $1 - \alpha$ , is<sup>2</sup>:

$$n = \frac{n_0}{1 + (n_0 - 1)/N} \quad (1)$$

where

$$n_0 = \frac{t^2 p(1 - p)}{d^2} \quad (2)$$

and  $t$  is the abscissa of the standard normal distribution curve, which excludes a total proportion area  $\alpha$  of the two tails. By calculation, it is easily established that the proportion  $p$  equal to 50% generates the largest required samples for each combination of the remaining parameters. This is a standard practice, and is adopted herein.

In a first iteration, we can make a calculation on the basis of a population  $N$  of 15,796 individuals, a 7.5% margin of error and a 95% confidence interval. This generates a sample with 169 persons to be surveyed. It should be noted that, though this sample enables us to infer the proportion of new graduates from technical schools who have obtained employment, it does not allow statistically representative inferences at the level of population segments (e.g., by province). In particular, the intention of this study is that the estimates are statistically representative at the level of province surveyed and study area, enabling us, for example, to infer the probability of a graduate from Cabo Delgado in an industrial course to achieve employment in the period of the survey, with the statistical confidence that we will be able to compare this probability with, for example, that of a graduate also in an Industrial course, but from Maputo Province.

Improving on the practice of several previous studies, the objective of this survey was to produce estimates by province and study area with a 7.5% margin of error and a 95% confidence interval. Thus, as recommended by Cochran (1977) (p.82), required sub-sample dimensions were calculated for each study area in each province. Table 2 presents the theoretical dimensions of the sub-samples and of the total sample that we sought to cover.

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<sup>2</sup> This value corresponds to the following equation:  $\Pr(|p - P| \geq d) = \alpha$ .



Table 2: Dimensions of the theoretical subsamples and total sample

	<b>Agriculture</b>	<b>Industry</b>	<b>Services</b>	<b>All</b>
Cabo Delgado	97	99	96	292
Cidade de Maputo	0	151	163	314
Maputo	94	129	125	348
Nampula	134	122	124	379
Tete	87	136	36	259
<b>Total</b>	<b>412</b>	<b>636</b>	<b>543</b>	<b>1,592</b>

Source: authors' calculations.

### 2.3 Implementation and final sample

The preparatory work for this survey was carried out early in 2019, with the definition of the sampling strategy, a review of the basic literature, meetings with stakeholders, including the Ministry of Labour, Employment and Social Security (MITESS) and the National Authority for Professional Education (ANEP) and the preparation of the follow-up telephone survey. In August 2019, a pre-pilot was carried out to test the questionnaire and survey equipment. With the institutional support of MITESS, the participating technical schools were contacted and all of them made available the necessary support for conducting the survey. Close to the implementation dates, contacts were re-established to plan the implementation of the survey in each technical school. These contacts occurred in a systematic way in the weeks immediately prior to the survey sessions. In many schools, the survey team was supported by local administrative staff.

The data collection period took place over a period of six weeks, between 2 October and 13 November 2019. The dates of the field visits are presented in Table 3. In liaison with each school, we scheduled a set of survey sessions on each day, with each session lasting roughly 1.5 hours. Most of these sessions were timed to cover a normal lesson which entailed a need to reschedule lessons lost. For this the survey team warmly thanks the availability of teachers and students. After a short presentation of the survey, the reading and signing of a consent form, the students received a tablet computer with a questionnaire produced in the KoboCollect application. Enumerators were on hand to assist students with any questions that arose in each session. At the end of the day, the completed questionnaires were uploaded online, allowing the automatic entry of data.

Table 3: Field work dates

<b>Province</b>	<b>Dates</b>
Maputo City	02/10 - 06/11
Nampula	07/10 - 11/10
Tete	21/10 - 23/10
Cabo Delgado	24/10 - 25/10
Maputo Province	29/10 - 19/11

In each session, the aim was to interview at least 20 students. However, in almost all classes we were able to interview all the students that were present, by far exceeding the sample design minimum. Less than 1% of students did not wish to participate. On several occasions, the number of students interested in participating in the survey exceeded our logistical capacity. In these cases, the schools allowed for the period of surveying to be extended.

The student questionnaire (see Appendix B) covered the following areas: (1) Background individual information; (2) Numerical, verbal and logic reasoning tests; (3) Motivations and aspirations of the student; (4) Expectations of labour market entry and future wages; and (5) Students' assessment of the learning environment.

In sum, the survey was conducted in 20 technical schools – three community, six private and 11 public – and surveyed students across 50 different courses (see Appendix A1). A total of 1,639 finalists, of whom 683 women and 956 men, were surveyed. A total of 1,622 students accepted to continue in the follow-up telephone phases, corresponding to a significant oversampling in total. However, the success rate by sub-group was variable. The actual obtained sample is shown in Table 4, alongside which we present the margins of error together for each subsample, for a  $p$  of 50% and a 95% confidence interval. The dimensions of the completed sample is presented in Table 5.

Short surveys of teachers were also conducted, with the aim of collecting one questionnaire per teacher per course covered in the sample. The teacher questionnaire was a 30 minute survey to collect contextual data that could be matched to the students of that particular class. The teachers were asked about the learning environment, and also to give their own expectations for their class of students on entering the labour market. Overall, 65 teachers completed a survey. Matching student responses to those of the teacher from the same subject and school allowed us to create a matched data set for 1,530 students.

Semi-structured, 45 minute interviews with the Director or Pedagogical Director of each school were also conducted during the fieldwork in order to gain more context of the different school environments. Due to space limitations, we do not report the results of the teacher surveys or director interviews here.

Table 4: Dimensions of the actual subsamples and margins of error with a 95% confidence interval

	<b>Subsamples</b>				<b>Margins of error</b>			
	Agric.	Ind.	Serv.	All	Agric.	Ind.	Serv.	All
Cabo Delgado	0	26	72	98	-	18.1%	9.5%	9.2%
Maputo City	0	176	438	614	-	6.9%	4.4%	3.7%
Maputo Province	137	143	42	322	4.9%	7.0%	14.4%	4.7%
Nampula	146	196	140	482	7.1%	5.1%	6.9%	3.7%
Tete	0	92	31	123	-	9.5%	9.9%	8.2%
<b>Total</b>	<b>283</b>	<b>633</b>	<b>723</b>	<b>1,639</b>	<b>5.1%</b>	<b>3.5%</b>	<b>3.4%</b>	<b>2.2%</b>

Source: authors' calculations using S2WTVET data.

Notes: '-' indicates no students were surveyed from this province / training area sub-population.

Table 5: Full sample: Course type by gender and school type

	<b>Agriculture</b>		<b>Services</b>		<b>Industrial</b>		<b>Total</b>	
	No.	%	No.	%	No.	%	No.	%
<b>Gender</b>								
Male	162	57.2	289	40.0	505	79.8	956	58.3
Female	121	42.8	434	60.0	128	20.2	683	41.7
<b>School type</b>								
Public	226	79.9	315	43.6	486	76.8	1,027	62.7
Community	57	20.1	35	4.8	69	10.9	161	9.8
Private	0	0.0	373	51.6	78	12.3	451	27.5
<b>Province of school</b>								
Cabo Delgado	0	0.0	72	10.0	26	4.1	98	6.0
Maputo City	0	0.0	438	60.6	176	27.8	614	37.5
Maputo Province	137	48.4	42	5.8	143	22.6	322	19.6
Nampula	146	51.6	140	19.4	196	31.0	482	29.4
Tete	0	0.0	31	4.3	92	14.5	123	7.5
<b>Total</b>	283		723		633		1,639	

Source: S2WTVET data.

### 3 Results

#### 3.1 Personal characteristics and family background

This section investigates the personal characteristics and family background of the TVET student sample. As it is not uncommon for young people to migrate to attend TVET Institutions, there are more provinces of origin represented than just five in the sample design. The level of migration and overall geographic diversity within the sample is shown in Table 6. Province of origin is defined as the province where the student attended primary school. The most represented provinces of origin are Maputo City, Maputo Province and Nampula Province, which are where the largest student samples were drawn during the survey.

Table 6: Province of origin

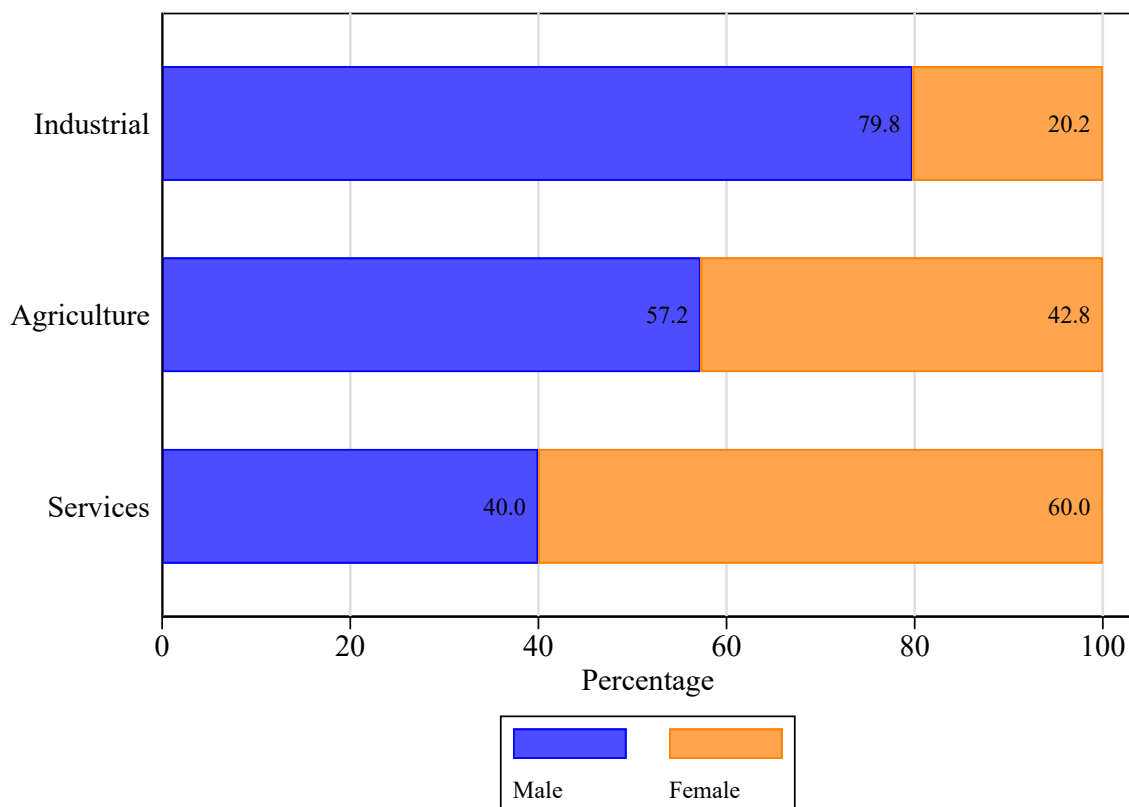
	Male %	Female %	Total %	N
<b><i>Primary school province:</i></b>				
Cabo Delgado	6.3	7.0	6.6	108
Maputo Cidade	24.4	36.2	29.3	480
Maputo Province	22.3	20.9	21.7	356
Nampula	25.7	19.5	23.1	379
Tete	7.5	4.0	6.0	99
Gaza	3.0	2.8	2.9	48
Inhambane	3.9	5.6	4.6	75
Niassa	1.5	0.9	1.2	20
Manica	0.5	0.4	0.5	8
Sofala	1.7	1.2	1.5	24
Zambezia	3.1	1.2	2.3	38
Abroad	0.1	0.4	0.2	4
<b><i>Moved to attend TVET school:</i></b>				
No	56.9	61.9	59.0	966
Yes	43.1	38.1	41.0	672
<b><i>Migrated province since primary school?:</i></b>				
No	79.7	83.6	81.3	1,333
Yes	20.3	16.4	18.7	306
<b>Total</b>	100.0	100.0	100.0	1,639

Source: S2WTVET data.

Overall, 41.0% of the students stated they had moved residence specifically to attend TVET school, and 18.7% have migrated province since primary school. Table 6 shows that men were more likely to have attended a TVET school in a different province to their primary school, or have moved homes in order to attend TVET school than the women, which could indicate a higher degree of mobility for young men than women in pursuing their education options.

In terms of gender, there are significant differences between the numbers of men and women across different study areas, as illustrated in Figure 1. Industrial courses are male dominated, with 79.8% of students being male, and there are also slightly more men than women in Agricultural courses, at 57.2%. However, Services, which includes both Commercial and Health courses, are female dominated, with 60.0% of students being women.

Figure 1: Area of studies by gender (%)



Source: S2WTVET data.

As presented in Table 7, the average age of respondents was similar across provinces and courses, with 21.6 being the overall average age. An exception is Cabo Delgado, where the average age

was 23.3 years old. This is likely to have contributed to the fact that the percentage of finalists being married or having children is also the highest in Cabo Delgado, with 11.2% being married, and 31.6% having children. In the overall sample, 22.9% of women have children, and 14.1% of men have children. Fewer finalists are married, with 6.7% of women being married, and 3.2% of men being married. This is presented in Table 8.

Table 7: Average age per area of study, gender and province

	<b>Female</b>	<b>Male</b>	<b>Total</b>
<b>Course type:</b>			
Agriculture	22.1	21.7	21.9
Services	21.6	21.5	21.5
Industrial	21.4	21.8	21.4
<b>Total</b>	21.6	21.6	21.6
<b>Province of school:</b>			
Cabo Delgado	23.5	23.2	23.3
Maputo City	21.5	21.7	21.6
Maputo Province	21.4	21.8	21.6
Nampula	21.5	20.9	21.3
Tete	21.5	20.7	21.3
<b>Total</b>	21.6	21.6	21.6
<b>N</b>	956	683	1,639

Source: S2WTVET data.

Table 8: Family situation by gender

	<b>Married (%)</b>	<b>Has children (%)</b>	<b>N</b>
<b>Gender:</b>			
Male	3.24	14.12	956
Female	6.74	22.87	683
<b>Total</b>	4.70	17.77	1,639
<b>Province of school:</b>			
Cabo Delgado	11.22	31.63	98
Maputo City	3.75	17.13	614
Maputo Province	2.17	18.32	322
Nampula	7.26	16.80	482
Tete	0.81	12.20	123
<b>Total</b>	4.70	17.77	1,639

Source: S2WTVET data.

Another area of interest is the family background or situation of the TVET students. As shown in Table 9, TVET students appear to come from households with some level of formal education: 74.3% of students had at least one parent with secondary school education or above. Compared to average levels of education in Mozambique, TVET students appear to reside in households with higher than average education levels. For instance, according to INE (2015), only 1.2% of Mozambique's population have completed higher education, yet in the sample of TVET finalists 27.3% have at least one parent with higher education (university degree or equivalent), with the lowest incidence being in Maputo Province at 22.4%.

Notwithstanding the above, a significant degree of intergenerational educational mobility can still be found in the sample – e.g., for 24.5% of the finalists, graduating from a medium-level TVET institution would imply they had obtained a higher level of education than either of their parents. We also find material variation in household context, especially comparing across study area (and province). Looking at Table 9 there is little difference in the distribution of parental education level across Industrial and Service courses. However, in Agriculture, there are slightly more parents with lower education levels, and fewer parents with a medium or higher level of TVET. Furthermore, when looking at the main employment of the family you also see that 27.9% of agriculture students come from households where self-employment in agriculture is the primary source of income. This suggests that some 'pipeline effect' may exist, whereby students from agricultural households are more likely to stay in agriculture.

Looking at parental education levels by province, shown in Table 10, there are some notable differences between provinces. Cabo Delgado has the highest incidence of students where neither parent has any formal education, at 8.2% of the sample, followed by Nampula at 5.4%. In Maputo City, only 2.1% of students had neither parent having any formal education.

Across all course types, waged work in the public sector is the most common main employment in the family, followed by waged work in the private sector. Looking at the main type of employment in the family by province, we see that Maputo City has the highest incidence of waged work in the private sector, and the lowest incidence of self-employment in agriculture. Contrastingly, Cabo Delgado and Nampula have much higher rates of households self-employed in agriculture. In Nampula, this may be as a result of including two schools in the sample with agricultural courses, but in Cabo Delgado there were no agricultural schools sampled. In Nampula, 43.6% of the students' families primary income source was from public sector jobs, and only 11.8% was from waged work in the private sector.



Table 9: Family background by course type (%)

	<b>Agriculture</b>	<b>Services</b>	<b>Industrial</b>	<b>Total</b>
<b><i>Highest education level of parents:</i></b>				
Don't know	0.4	1.5	1.1	1.2
No Formal Education	4.9	3.9	3.5	3.9
Primary School	21.6	15.4	17.7	17.3
TVET Level Basic	2.8	2.9	4.1	3.4
Secondary School	36.7	31.7	29.7	31.8
TVET Level Medium	11.3	16.0	16.0	15.2
Higher Education	22.3	28.6	28.0	27.3
<b>Total</b>	100.0	100.0	100.0	100.0
<b><i>Main employment of family:</i></b>				
Don't know	5.3	7.1	6.0	6.3
Business owner (not agriculture)	2.5	1.8	2.7	2.3
Self-employed in agriculture	27.9	10.4	13.7	14.7
Self-employed in non-agriculture	16.3	18.1	16.9	17.3
Waged work in private sector	14.1	24.2	22.1	21.7
Waged work in public sector	33.9	38.5	38.5	37.7
<b>Total</b>	100.0	100.0	100.0	100.0
<b>N</b>	283	723	633	1,639

Source: S2WTVET data.

Table 10: Family background by province of school (%)

	<b>CD</b>	<b>MC</b>	<b>MP</b>	<b>NP</b>	<b>TT</b>	<b>Total</b>
<b><i>Highest education level of parents:</i></b>						
Don't know	2.0	1.8	0.6	0.4	1.6	1.2
No Formal Education	8.2	2.1	4.0	5.4	3.3	3.9
Primary School	15.3	14.7	22.0	18.3	16.3	17.3
TVET Level Basic	3.1	3.4	4.0	2.9	3.3	3.4
Secondary School	31.6	31.8	35.7	30.5	26.8	31.8
TVET Level Medium	13.3	16.9	11.2	15.4	17.9	15.2
Higher Education	26.5	29.3	22.4	27.2	30.9	27.3
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b><i>Main employment of family:</i></b>						
Don't know	5.1	8.1	8.7	3.3	4.1	6.3
Business owner (not agriculture)	1.0	2.8	3.4	1.5	0.8	2.3
Self-employed in agriculture	21.4	6.5	10.9	25.3	18.7	14.7
Self-employed in non-agriculture	15.3	18.7	19.9	14.5	16.3	17.3
Waged work in private sector	17.3	28.0	24.5	11.8	24.4	21.7
Waged work in public sector	39.8	35.8	32.6	43.6	35.8	37.7
<b>Total</b>	100.0	100.0	100.0	100.0	100.0	100.0
<b>N</b>	98	614	322	482	123	1,639

Source: S2WTVET data.

Notes: provinces are abbreviated as follows: CD = Cabo Delgado, MC = Maputo Cidade, MP = Maputo Province, NP = Nampula, TT = Tete.

### 3.2 Experience in TVET school

The following results explore the experience of the student within their TVET institutions. As noted, the standard length of a Medium Level qualification is three years, usually taken instead of Grades 11 and 12 in secondary school, or after completing Grade 12. The average time they had spent studying, presented in Table 11 at 3.34 years therefore reflects some delays in students finishing on time, which could be due to difficulties in finding academic internships, repeating exams or prolonging their studies. The only instance in which the average time taken is below the expected three years is in private schools, which is likely due to the higher fees associated with the private institutions. However, this might be because private schools tend to take a greater portion of students who have completed 12th grade in the national education system, which allows them to omit some of the technical level courses.

The average monthly costs of attending TVET school, reported in Table 11, are based on what the student estimated they spent on school fees, school materials and transport to and from school per month. Attending a private school is markedly more expensive, with total costs at an average of 5,422 MZN (approx. 80 USD) per month, which is more than double the average cost associated with attending a public school, 1,982 MZN (approx. 30 USD). The highest monthly costs of TVET education across all school types were in Maputo City. This is influenced by the fact that 54% of students in Maputo were at private institutions. The lowest average costs were in Cabo Delgado, where all students sampled were in public institutions.

According to the Ministry of Education and Human Development, community schools are defined as private educational establishments created by groups of parents and guardians, non-governmental organizations, associations or religious denominations, or non-profits. Several such schools in Mozambique also receive funding from the state, including government-salaried teachers. The three community schools in our sample did receive some state funding, and thus lie between private and public. Despite potential access to multiple funding sources, and being associated with churches or NGOs, community schools in Mozambique do not necessarily offer lower tuition fees. Monthly costs at community schools were almost double those associated with public schools.

Breaking down costs by study area, the highest monthly costs of education were in Service courses, which is somewhat surprising as these courses usually require less classroom and workshop equipment compared to Industrial and Agricultural courses. However, this result is driven by the fact that 51.6% of students in Services were at private schools, whereas there were

no students at private schools studying Agriculture, and only 12.3% of students on Industrial courses were at private schools. This difference can be seen in Figure 2. The courses incurring the highest education costs were Industrial courses at private institutions, followed closely by Service courses at private institutions. Put another way, differences in costs primarily reflect the type of institution not the course. Assuming differences in employability and wages between courses, this would imply large differences in return to education across courses (within the same institution).

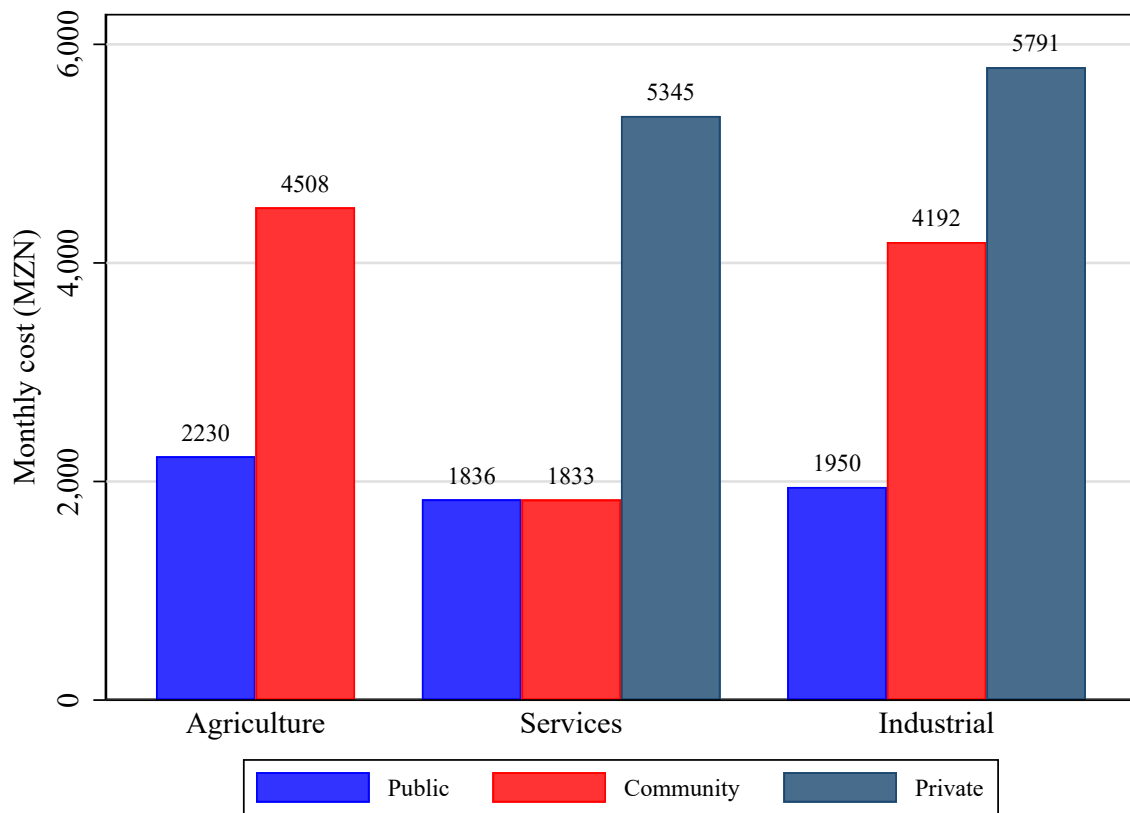
Table 11: Study length and monthly total costs

	<b>Time (years)</b>	<b>Costs (MZN)</b>
<b>Course type:</b>		
Agriculture	3.64	2,676
Services	3.11	3,854
Industrial	3.48	2,684
<b>School type:</b>		
Public	3.53	1,983
Community	3.65	3,809
Private	2.82	5,423
<b>Education type:</b>		
Classic	3.35	4,105
Modular	3.34	2,507
<b>Province of school:</b>		
Cabo Delgado	3.41	1,927
Maputo City	3.23	4,113
Maputo Province	3.06	2,319
Nampula	3.57	2,970
Tete	3.68	2,741
<b>Total</b>	3.34	3,194
<b>N</b>	1,639	

Source: S2WTVET data.

Note: Monthly education costs include tuition fees, materials and transport.

Figure 2: Average monthly costs by area of study and type of school



Source: S2WTVET data.

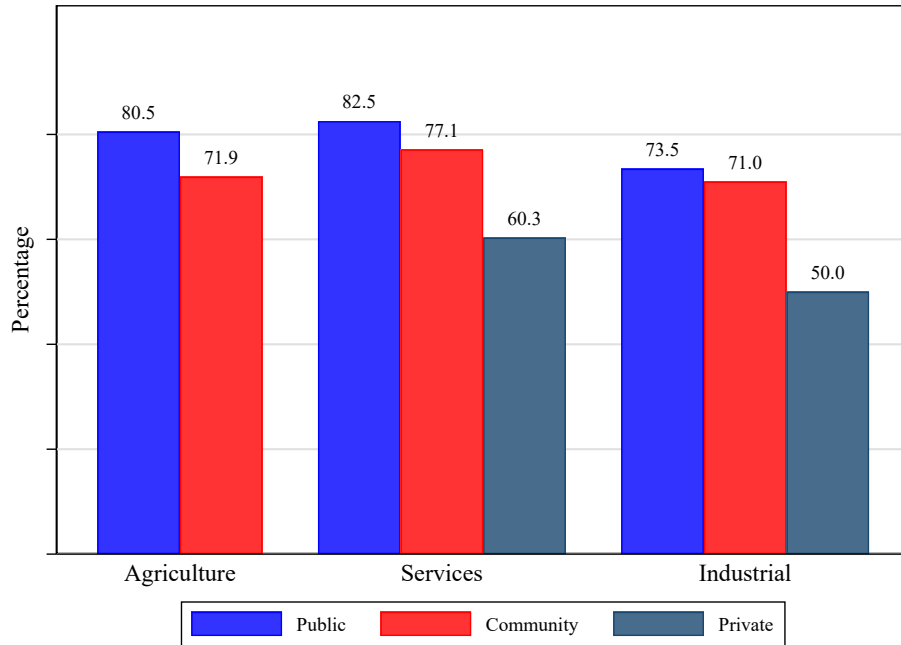
Another element studied in the baseline survey in relation to the students' experience at TVET school was their level of satisfaction with the school (as a whole) and their course of study. Students were asked if, now having come to the end of their courses, they would choose the same school or course again. Their responses are displayed in Figures 3 and 4. What is notable is that satisfaction with the school is notably lower in private schools – only 50.0% of students in private industrial courses say they would choose the school again, as do only 60.3% of those in private schools studying services. For community and public schools, the satisfaction was significantly higher, at 71.0% or above. However, Industrial students are consistently the least satisfied with their school.

Looking at the choice of course, satisfaction levels are much higher. Across all school and course types, over 86% of students said they would choose the same course again. It will be interesting to see if this high satisfaction with area of study remains constant as the students are tracked in their entry to the labour market.

Although student satisfaction seems relatively high when asking whether students would choose the same school and course again, a different picture emerged when we asked students about obstacles in their learning environment. Figure 5 shows the percentage of students who identified specific potential areas as a *severe* obstacle to their learning, which was the worst position they could rank each constraint. More than 1 in 3 students identified four areas as severe obstacles to their learning: access to equipment, teacher technical knowledge, teacher motivation and absenteeism, and equipment quality. Teacher behaviour was also considered a severe obstacle by just under 1 in every 3 students.

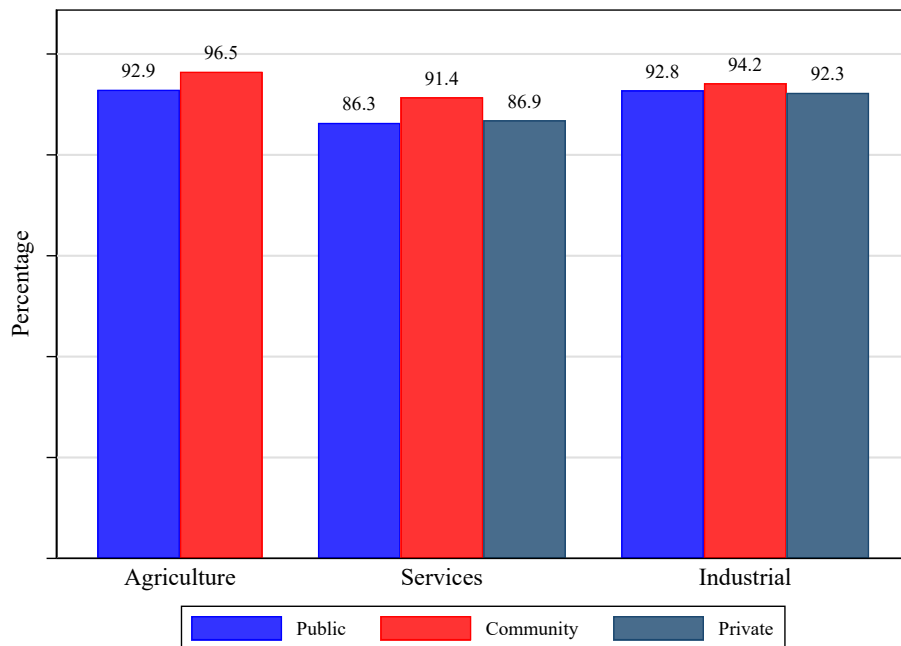
Diving deeper, Table 12 breaks-down the same results by province, school type and study area. Across all possible obstacles, the students identifying the greatest severity of obstacles were in Agriculture. Table 12 shows that as many as 47% of Agriculture students saw teacher motivation and absenteeism as a severe problem; and over 40% saw equipment access, equipment quality, teacher quality and teacher behaviour as severe problems. In our interviews with school directors of the specialized agriculture schools, which were also all boarding schools, they most strongly pointed to struggles with funding. However, what is noteworthy is that despite identifying many severe obstacles in their learning environment, Agriculture students were also the most likely to say they would choose the same school again.

Figure 3: Proportion of students who would choose the same school again by study area and school type



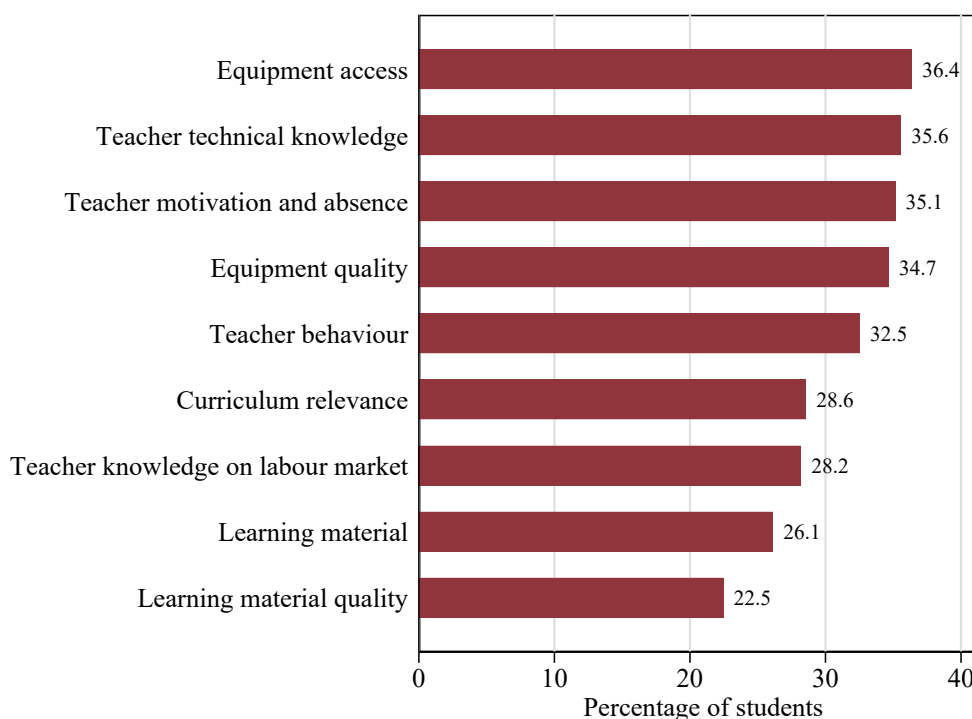
Source: S2WTVET data.

Figure 4: Proportion of students who would choose the same course again by course type and school type



Source: S2WTVET data.

Figure 5: Scored as severe obstacle, percent of students



Source: S2WTVET data.

Analysing by province, Table 12 shows that identification of severe obstacles in the learning environment was highest in Tete and Cabo Delgado, and that students perceived slightly less severe obstacles in their learning environment in Maputo City and Maputo Province. We also note some differences between education type. Interestingly, students attending the newer modular-type courses were more likely to identify learning materials and curriculum relevance as severe obstacles. This chimes with qualitative results from director interviews, where the lack of available or prepared material to support the new courses was often mentioned.

Analysing by school type, across almost all areas, students at community schools were more likely to identify obstacles as severe compared to private and public institutions. Approximately 40% of finalists at community schools found equipment access, equipment quality, teacher motivation and absenteeism, and curriculum relevance to be severe obstacles in their school. This is despite the fact that community schools are not substantially cheaper than private schools and, in theory, have multiple sources from which to obtain funds.



The follow-up question to this is: how would students choose to improve their learning environment? In the questionnaire, students were asked to select two things which would be their priority investments for their school. The results of this vote are shown in Figure 6, where each vote is treated equally, thus two votes per student. Investment in better equipment is the clear first priority for students, which reflects what was already seen in the high number of students identifying equipment quality and access as a severe obstacle for their learning environment.

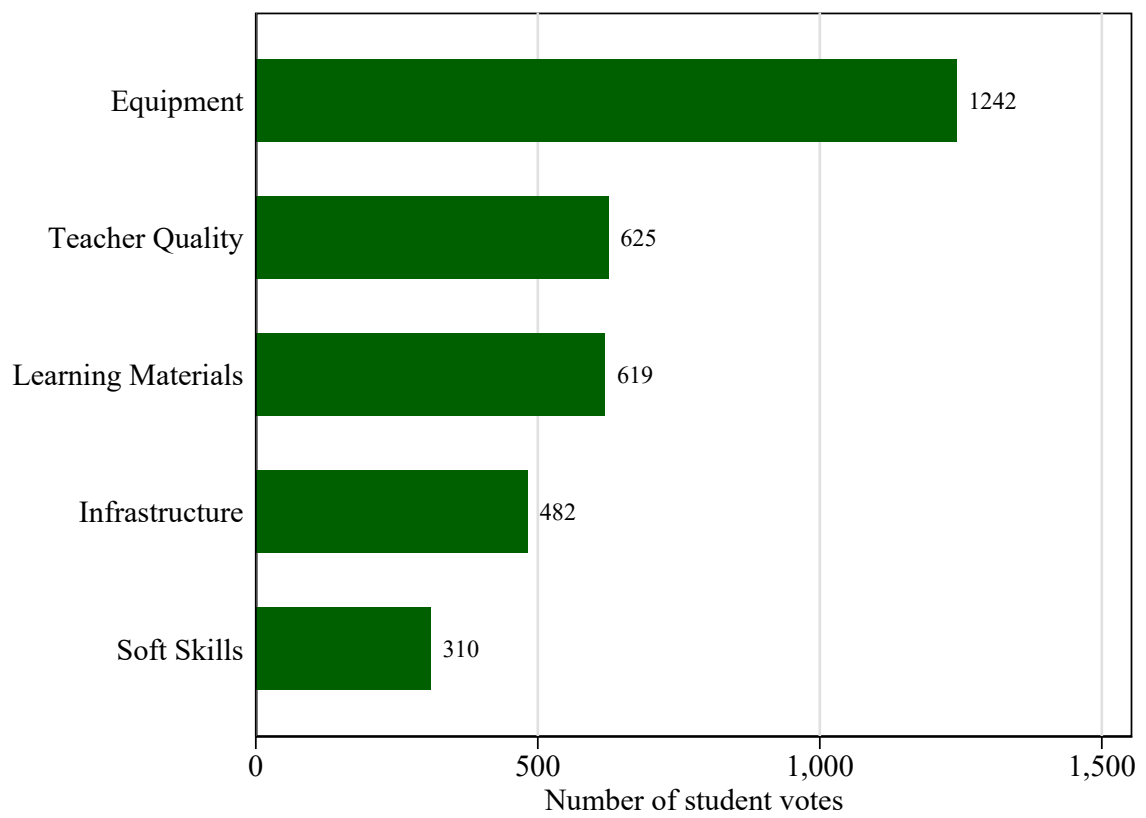
Table 12: Students that reported area as a severe obstacle (%) – by province, study area and school type.

Obstacles:	LM	LMQ	Eq	EqQ	Cur	TMA	TQ	TK	TB
<b><i>Province of school:</i></b>									
Cabo Delgado	29.59	23.47	41.84	35.71	33.67	48.98	41.84	33.67	38.78
Maputo City	20.52	18.89	33.06	31.27	22.15	29.64	33.22	23.94	28.18
Maputo Province	25.78	19.88	31.37	31.06	23.60	31.99	32.30	26.09	30.75
Nampula	29.67	26.97	40.04	38.80	36.10	40.66	37.97	31.54	35.48
Tete	38.21	28.46	47.15	43.90	39.84	38.21	41.46	37.40	42.28
<b><i>Course type:</i></b>									
Agriculture	33.92	25.80	44.17	43.11	35.69	47.00	44.17	36.75	41.34
Services	23.79	21.44	35.82	34.44	25.86	32.64	33.61	25.73	31.12
Industrial	25.28	22.12	33.49	31.12	28.44	32.70	33.97	27.17	30.17
<b><i>Education type:</i></b>									
Classic	24.15	21.33	34.37	33.48	25.93	32.00	35.70	26.37	31.11
Modular	27.49	23.24	37.76	35.48	30.39	37.34	35.48	29.46	33.51
<b><i>School type:</i></b>									
Public	25.61	20.74	36.51	33.59	27.95	33.59	34.37	26.87	29.99
Community	34.78	28.57	40.99	40.99	39.13	41.61	37.27	34.78	37.27
Private	24.17	24.17	34.37	34.81	26.16	36.36	37.69	28.82	36.59
<b>Total</b>	26.11	22.45	36.36	34.66	28.55	35.14	35.57	28.19	32.52
<b>N</b>	1,639								

Source: S2WTVET data.

Notes: LM = Learning materials; LMQ = Learning material quality; Eq= Equipment access; EqQ = Equipment quality; Cur = Curriculum relevance; TMA = Teacher motivation and absenteeism; TQ = Teacher technical knowledge; TK = Teacher knowledge on labour market; TB = Teacher behaviour.

Figure 6: Student's priorities on investments needed for school



Source: S2WTVET data.

Note: Each student was given two votes for what would be their main priorities if they could invest in the school. First and second choice are treated equally.

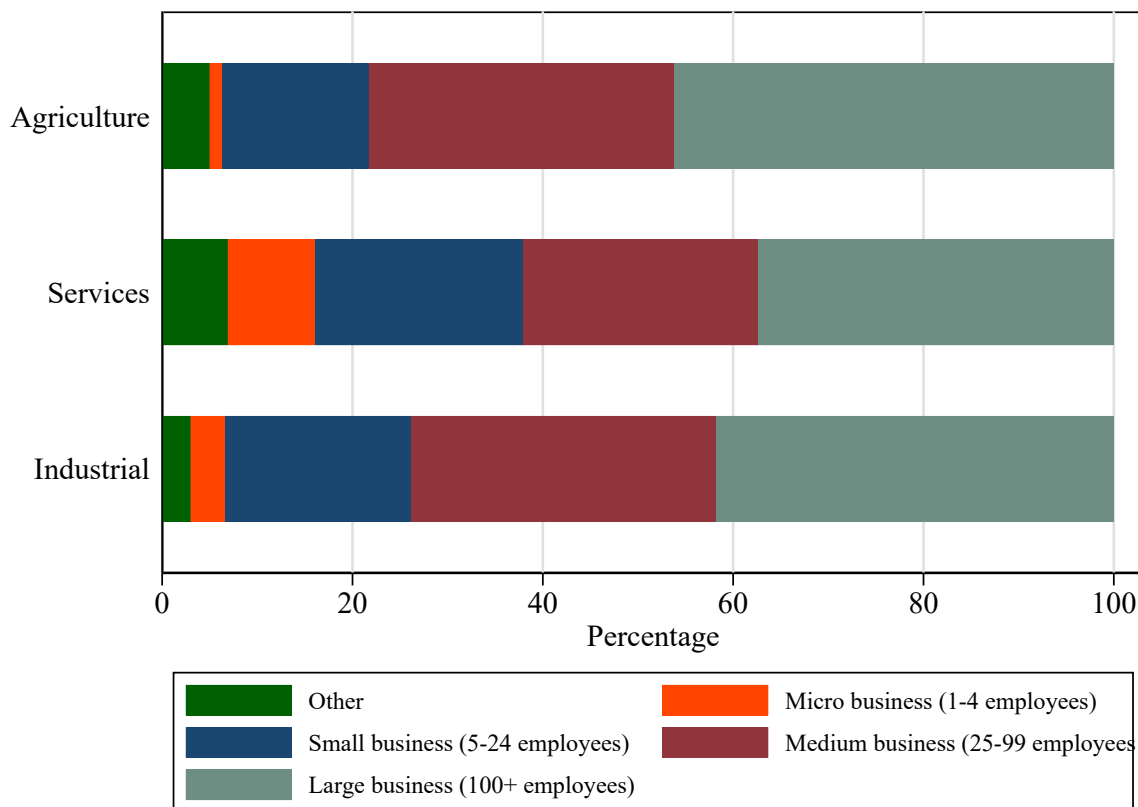
### 3.3 Prior work experience

On the whole, the majority of TVET students in the sample have had some prior work experience. As shown in Table 13 (final column), 73.5% of students have had some form of work experience, be that an academic internship as part of their course structure, a professional internship outside of their course, or paid work. However, the table also reveals a marked gender difference in prior work experience. Women are much less likely than men to be graduating TVET Level Medium without work experience: whereas only 18.9% of men are graduating without any work experience, 37.2% of women have not had work experience. This gender disparity may put women at a significant disadvantage as they enter the labour market. Women are less likely to have had an academic or professional internship, or paid work experience, with the largest disparity being in experience of paid work. Table 13 also shows that only 29.6% of women have had paid work, versus 57.0% of men. While this may reflect differences in area of study (and skills), this disparity merits further investigation.

Academic internships, which are internships for which the student receives credits towards completing their course, have been completed by 50.7% of the sample. It is important to note that although we sampled the students in their last two months of formal study, there may be some students yet to undertake an academic internship in 2020 – i.e., before graduating. Academic internships, at an average of 2.4 months, were slightly shorter than professional internships (3.5 months on average). Only 18.7% of the students had done a professional internship. The average length of paid work experience was considerably longer than the internships, at 8.2 months. 42.7% also said that this paid work experience was in the same area that they now study.

Interestingly, Maputo City has by far the fewest students completing internships, with only 18.6% of students having had the opportunity to do an academic internship during their course, whereas in all other provinces at least 50% of students had done an academic internship. This was not made up for in professional internships, where only 13.0% of students in Maputo City had done a professional internship. This lack of internship experience in Maputo City appears to be driven by a lack of internships for students in the Services sector, with only 7.8% of Maputo City students getting internships, compared to 49% of Service students in the other four provinces. This finding, confirmed in qualitative discussions with teachers and school directors, points to a saturation of Services students relative to market demand. In itself, lack of prior experience may act as a significant barrier for students in the next steps of their career; but also, this may be symptomatic of an over-supply of students in these areas.

Figure 7: Type of organization for academic internships, by study type



Source: S2WTVET data.

Note: this does not include professional internships, only academic internships which are part of the course.

Compared to Maputo City, students in TVET courses in other provinces show much higher rates of prior work experience. In Tete, where 85.4% of students had undertaken an academic internship, 90.2% of students were graduating with some existing work experience. In Cabo Delgado, where the average age was approximately two years higher, 50.0% of finalists had already undertaken paid work and 91.8% of finalists expected to graduate with some work experience.

Figure 7 shows the type of organizations in which students had completed their academic internships. The majority of academic internships were undertaken in medium or large businesses. Services students, however, were far more likely to undertake internships in either micro businesses with less than four workers (9.2% of Services internships), or small businesses with less than 24 workers (21.8% of Services internships).

Table 13: Work experience

	Paid work		Academic internship		Professional internship		Any experience
	%	Months	%	Months	%	Months	%
<b>Gender:</b>							
Male	57.0	8.0	56.0	2.4	21.8	3.6	81.1
Female	29.6	8.6	43.3	2.4	14.5	3.4	62.8
<b>Total</b>	45.6	8.2	50.7	2.4	18.7	3.5	73.5
<b>Course type:</b>							
Agriculture	41.7	7.6	78.1	2.9	17.7	3.7	86.9
Services	37.5	9.6	24.1	2.0	16.0	3.5	55.7
Industrial	56.6	7.2	68.9	2.3	22.3	3.5	87.7
<b>Total</b>	45.6	8.2	50.7	2.4	18.7	3.5	73.5
<b>Education type:</b>							
Classic	43.4	8.2	24.4	2.9	15.3	3.9	58.4
Modular	47.1	8.2	69.1	2.3	21.2	3.3	84.0
<b>Total</b>	45.6	8.2	50.7	2.4	18.7	3.5	73.5
<b>Province of school:</b>							
Cabo Delgado	50.0	8.8	67.3	1.5	30.6	3.2	91.8
Maputo City	41.0	8.9	18.6	3.4	13.0	4.2	52.9
Maputo Province	54.3	8.6	73.3	2.8	18.9	3.0	87.3
Nampula	46.9	7.1	64.3	1.9	21.8	3.5	82.4
Tete	36.6	7.3	85.4	2.3	25.2	3.2	90.2
<b>Total</b>	45.6	8.2	50.7	2.4	18.7	3.5	73.5
<b>N</b>	1,639						

\*To have had 'Any experience' requires the student to either having completed at least one academic or professional internship, or have had paid work.

Source: S2WTVET data.

## 3.4 Employment expectations

We now turn to the future employment expectations as stated by the finalists at the time of the baseline survey. Since we will track students for one year as they enter the labour market, it will be possible to compare these expectations against realized outcomes, as well as how these expectations change over time.

### 3.4.1 Plans after graduation

As shown in Table 14, the majority of students – about 6 in every 10 – intend to look for work after graduation. Furthermore, 2.4% plan to continue in an existing job, and 16.4% aim to find an internship. Thus, 78.0% of the finalists (8 in 10) are hoping to enter the labour market at the start of 2020. Of the remaining participants, 20.8% wish to continue studying, most likely moving to university level studies. Less than 1% plan to attend to family obligations, and less than 1% have no plans.

Men are slightly more likely to intend to find work after graduating than women, and women are more likely to want to find an internship first. This may well reflect the gender disparity in existing work experiences of finalists, presented in the previous section. Furthermore, a higher proportion of women expressed a wish to study further, at 24.5% (1 in 4).

Looking at the breakdown by area of study, students of Agriculture are the most likely to want to find work, and are the least likely to want to find an internship. Services students are most likely to want to study further, with 24.4% wanting to continue studies to a higher level. Services students are also most likely to want to take an internship, at 20.8%. Again, this likely reflects the lower work experience rates amongst Services students, shown above.

Students in Maputo City are most likely to want to continue to further studies, and the least likely group of students are found in Nampula. This may reflect the different educational opportunities available to students in these provinces, as well as differences in having household means to attend university.

Table 14: Plans for after graduation, by course type, gender and province (%)

	No plans	Family obli- gations	Find work	Futher study	Find intern- ship	Continue existing job	N
<b>Course type:</b>							
Agriculture	0.0	1.4	71.0	17.7	6.7	3.2	283
Services	0.3	0.1	52.2	24.4	20.8	2.2	722
Industrial	0.6	1.3	61.9	18.2	15.8	2.2	633
<b>Total</b>	0.4	0.8	59.2	20.8	16.4	2.4	1,638
<b>Gender:</b>							
Male	0.5	1.0	61.5	18.2	15.7	3.0	956
Female	0.1	0.4	56.0	24.5	17.4	1.5	682
<b>Total</b>	0.4	0.8	59.2	20.8	16.4	2.4	1,638
<b>Province of school:</b>							
Cabo Delgado	0.0	0.0	56.1	23.5	18.4	2.0	98
Maputo City	0.2	0.2	50.6	26.8	19.6	2.8	613
Maputo Province	0.9	1.2	68.9	19.3	8.1	1.6	322
Nampula	0.2	1.0	61.8	14.9	19.1	2.9	482
Tete	0.8	2.4	69.1	16.3	10.6	0.8	123
<b>Total</b>	0.4	0.8	59.2	20.8	16.4	2.4	1,638

Source: S2WTVET data.

### 3.4.2 Work type preferences

As shown in Table 15 (as well as Figures 8 and 9) the finalists seem open to the pathway of entrepreneurship. Only 16.9% of students stated they would not want to work for themselves. Most would be willing to run their own business, 66.9%, while 16.2% stated they would be willing to undertake '*biscates*', which refers to a common style of informal work where someone takes on small jobs (odd jobs). This can either be a primary income source, or undertaken in addition to other work or employment.

Students of Industrial area courses were least open to entrepreneurship, with 1 in 4 excluding this as a route to work. This may reflect the difficulty of starting a business in the Industrial sector without significant capital, compared to the sectors of Services and Agriculture.

Students were most willing to start their own business in Maputo Province and Maputo City. But, these were also the two places where the less formal type of self-employed work, '*biscates*', was least desired. In Maputo City and Province, students were also more likely to answer 'No' to working for themselves.

Table 15: Openness to entrepreneurship (would work for self?)

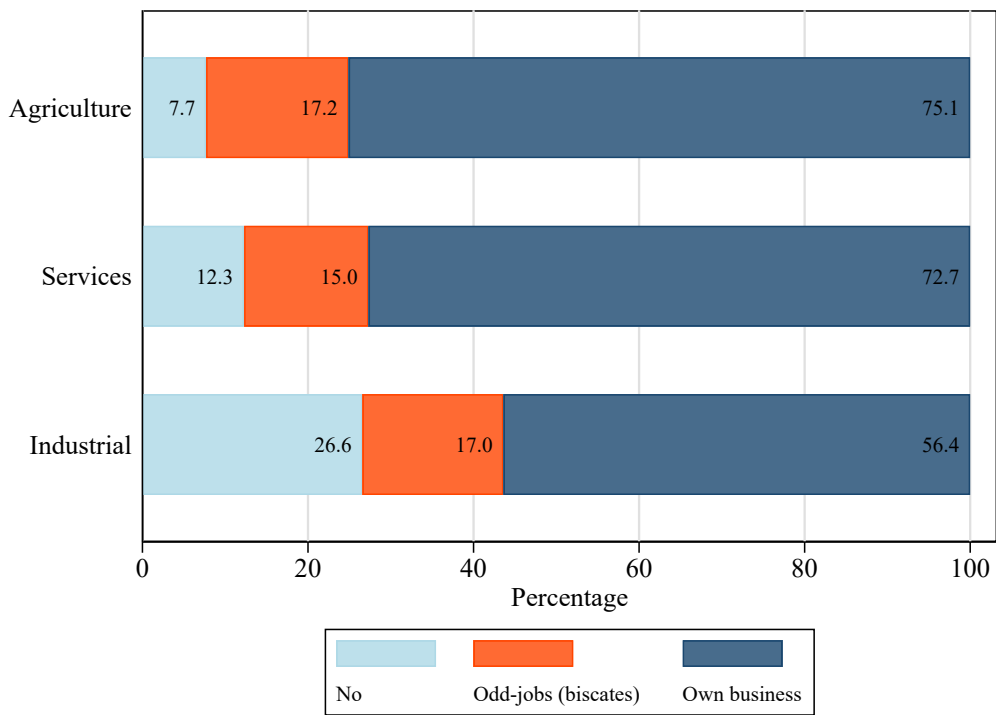
	No	Odd-jobs / Biscates	Own business	N
<b>Course type:</b>				
Agriculture	7.7	17.2	75.1	273
Services	12.3	15.0	72.7	692
Industrial	26.6	17.0	56.4	587
<b>Gender:</b>				
Male	18.0	14.9	67.1	905
Female	15.3	17.9	66.8	647
<b>Province of school:</b>				
Cabo Delgado	9.3	24.7	66.0	97
Maputo City	18.1	11.6	70.3	552
Maputo Province	20.3	8.5	71.2	316
Nampula	14.3	22.3	63.4	467
Tete	18.3	26.7	55.0	120
<b>Total</b>	16.9	16.2	66.9	1,552

Source: S2WTVET data.

Notes: N = 1,552 as it only includes students who intend to work.

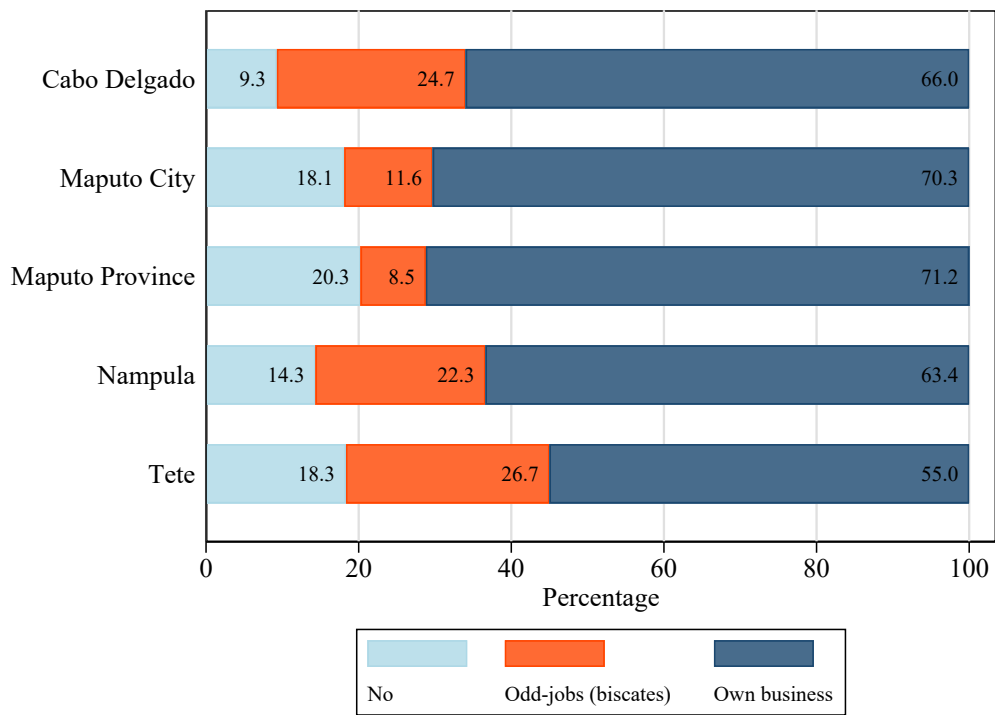


Figure 8: Openness to entrepreneurship, by area of study



Source: S2WTVET data.

Figure 9: Openness to entrepreneurship, by province



Source: S2WTVET data.

### 3.4.3 Labour market expectations

Table 16 shows the time finalists think it will take them to find work (not including self-employed work) after graduating. The table shows that the majority of students, 52.3%, stated that they did not know how long it would take them to find work. This reveals a high degree of uncertainty for TVET graduates, and more generally a lack of information as they enter the labour market.

For those students who did not select ‘don’t know’, the majority seemed optimistic that they would find work relatively quickly: 26.1% believe it will take between zero and three months to find work, followed by 17.1% thinking it will take between four and six. The remaining 5.4% believe it will take longer than seven months. Over the course 2020, this study will track student’s professional outcomes, and so these predictions can be contrasted with reality.

Comparing across provinces, finalists were least optimistic about finding work quickly in Nampula province, where only 16% thought they would have work within three months (among those giving an answer). Finalists were most optimistic in Maputo Province, where over a third believed they would have work within three months. There were no significant differences between gender, and no large differences between study areas.

Students were asked about various salary expectations in different types of work, including what they expect to earn in: (i) their first job as an employee, (ii) work in odd-jobs (*biscates*), or (iii) their own business. Note that students only predicted these salaries if they had stated an interest in pursuing that type of work. Across the whole sample, the average expected monthly salary for *biscates* was 13,954 MZN (215 USD), 16,067 MZN (250 USD) for self-employed work and 15,940 MZN (250 USD) as an employee. These are all monthly wages that are substantially above the minimum wage in any sector.

However, there are notable gender disparities. Not considering differences across study area, as employees women expected to earn 3,624 MZN less than men. Figure 10 breaks this down, showing how expected wages differ across course, gender and type of employment. From the figure it is clear that in Services and Industrial subjects men, on average, expect to earn more than women. The highest wages expected are those of Industrial finalists, at 18,500 MZN as a male employee, and 16,700 MZN as a female employee. In Services, men expect to earn at least 2,000 MZN more per month than women across all employment types. However this tendency is not found in Agriculture courses, where women actually expect to earn slightly more than men, except for in self-employment, where they expect to earn slightly less.

Table 16: Time expected before obtaining work (%)

	<b>Unknown</b>	<b>0-3</b>	<b>4-6</b>	<b>7-9</b>	<b>9-12</b>	<b>&gt;12</b>	<b>Total</b>
<b>Course type:</b>							
Agriculture	55.3	24.8	14.1	4.9	1.0	0.0	100.0
Services	49.7	29.1	17.2	1.5	2.1	0.4	100.0
Industrial	53.9	23.4	15.5	2.5	3.4	1.3	100.0
<b>Gender:</b>							
Male	52.3	24.4	16.7	3.3	2.4	0.9	100.0
Female	52.4	28.4	15.1	1.4	2.4	0.4	100.0
<b>Province of school:</b>							
Cabo Delgado	63.5	20.0	12.9	2.4	1.2	0.0	100.0
Maputo City	48.3	27.1	18.4	1.7	3.3	1.2	100.0
Maputo Province	50.5	33.2	12.7	1.8	1.4	0.4	100.0
Nampula	61.2	16.0	15.6	5.9	1.3	0.0	100.0
Tete	46.8	29.7	17.1	0.9	4.5	0.9	100.0
<b>Total</b>	52.3	26.1	16.0	2.5	2.4	0.7	100.0
<b>N</b>	628	313	192	30	29	8	1,200

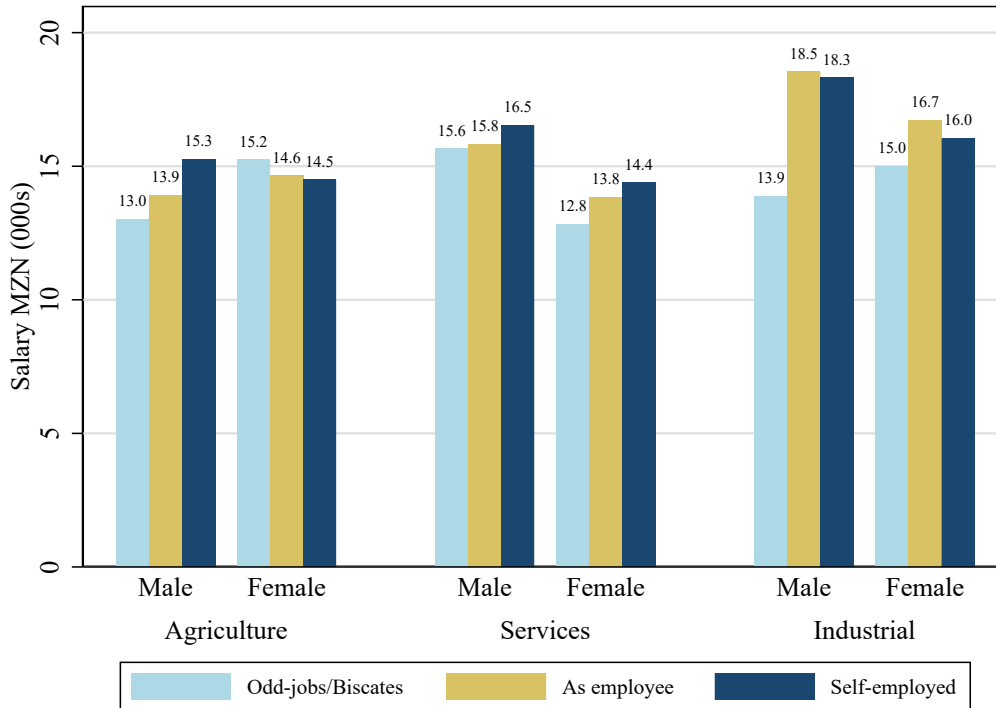
Source: S2WTVET data.

Note: this is working for someone else, not self-employed work.

Further using Figure 10 to compare within gender but across subjects, we note that men studying Services expected to earn more than men studying Agriculture across all employment types. However, the same was not true for women, where across all employment types women in Agriculture expected to earn more than the women in Services. These findings lead to further questions as to what type of work these groups of students are expecting, and what aspect of the work and wage expected is differing according to gender.

Figures 11 and Figure 12 show expected salaries by province of TVET institution. Figure 11 shows significant expected wage differences in this regard. However, it is important to note that the province averages are affected by the study areas existing in the province. For example, the highest expected wage across all employment types is in Tete, and this is driven by the fact that 74.8% of the students in Tete, which hosts a large coal industry, are enrolled in Industrial courses. Looking at Figure 12, which compares both study areas and provinces for expected wage as an employee, shows that although Tete has the highest expected Industrial wages, it also has the lowest expected salaries for Services in the sample.

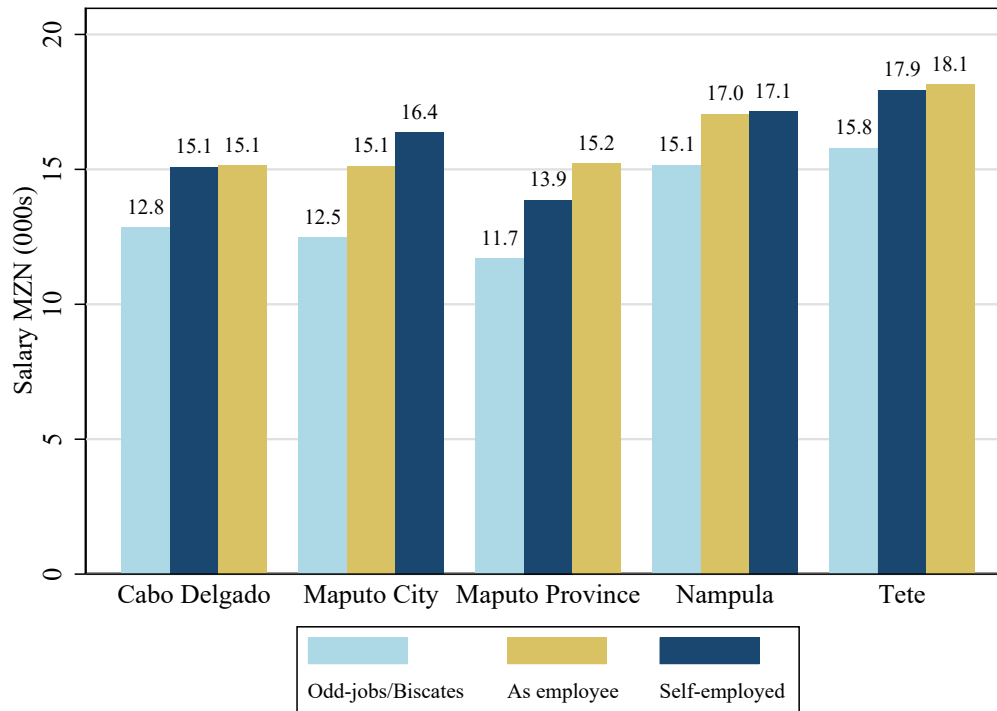
Figure 10: Expected salaries for first job, by course and gender



Source: S2WTVET data.

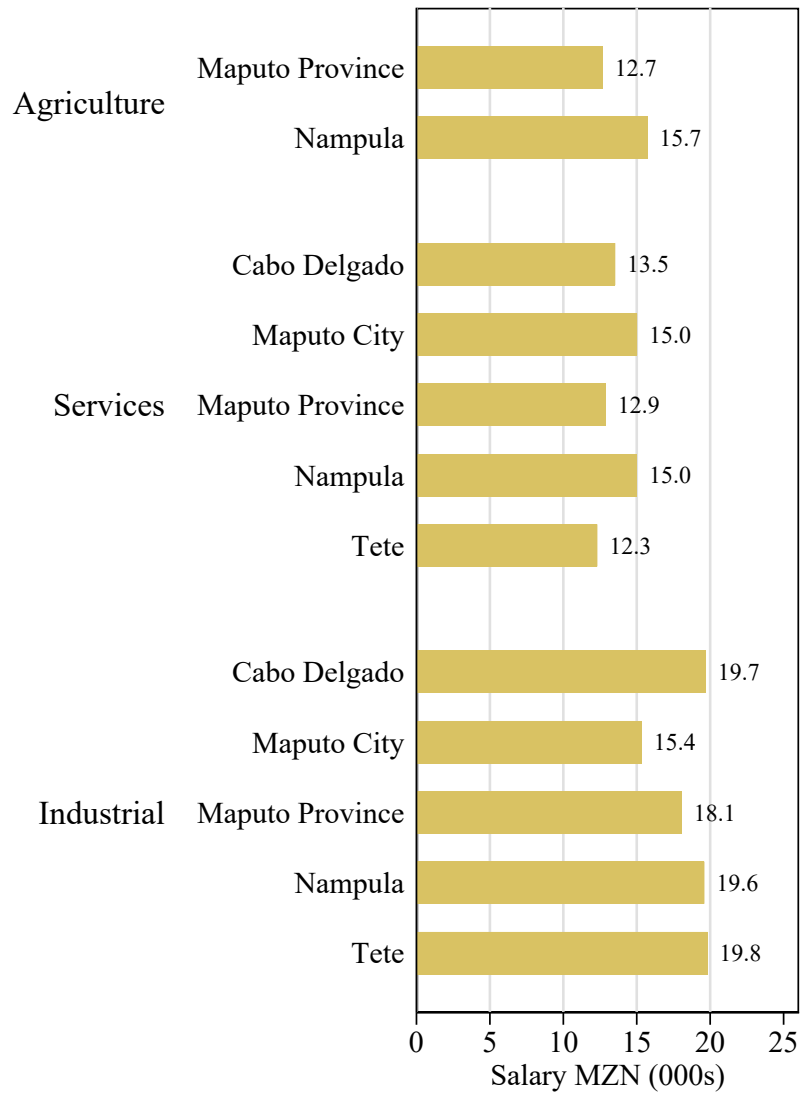
Although students in Maputo City expect the highest wages in Services (15,000 MZN) they simultaneously, and somewhat surprisingly, expect the lowest salaries in Industry at 15,400 MZN; Industrial students from other provinces expect salaries above 18,100 MZN after completing their courses. Students in Nampula expect the second highest wages in the sample. They expect wages on par with those of Maputo City in terms of Services, at 15,000 MZN per month, and the highest expected wages in Agriculture at 15,700 per month. Their expected wages are only slightly below those of Tete and Cabo Delgado in Industry. Students in Maputo Province expect towards the lower end of wages in all subject areas.

Figure 11: Expected salaries for first job, by province



Source: S2WTVET data.

Figure 12: Expected salaries for first job (as employee) over province by course type



Source: S2WTVET data.

Note: There are no observations for Agriculture in Maputo City, Maputo Province, nor Tete.

If students stated they wanted to work as an employee, they were also asked about their preference for type of employer. These results are shown in Table 17. Across the sample, private and public sector jobs are most desired compared to working in a family business or for an NGO. Less than 1% of students would prefer working in their family business (as an employee), and just over 2% are interested in working in an NGO.

For Agriculture students, public sector jobs are the most desirable. For Services students, both private sector and public sector jobs were highly selected. It is worth noting that some of the Services courses in the sample were geared specifically towards jobs with strong links to the public sector, such as Customs Technician and Public Administration courses. For Industrial students, a third of students would prefer public sector work, and just under two thirds would prefer private sector work. Across the sample, women were slightly more likely than men to prefer public sector work.

Table 17: Preferred employer type by course, gender and province

	<b>Other</b>	<b>Family</b>	<b>NGO</b>	<b>Private</b>	<b>Public</b>	<b>Total</b>
	%	%	%	%	%	%
<b>Course type:</b>						
Agriculture	2.4	1.5	3.4	37.9	54.9	100.0
Services	3.6	0.6	1.9	48.0	45.9	100.0
Industrial	5.3	0.6	1.7	60.1	32.3	100.0
<b>Gender:</b>						
Male	4.0	1.1	1.9	55.9	37.1	100.0
Female	4.2	0.2	2.4	44.2	49.0	100.0
<b>Province of school:</b>						
Cabo Delgado	5.9	0.0	3.5	58.8	31.8	100.0
Maputo City	5.4	1.0	2.1	47.7	43.8	100.0
Maputo Province	3.5	0.4	2.1	46.3	47.7	100.0
Nampula	2.5	0.8	1.3	52.3	43.0	100.0
Tete	1.8	0.9	2.7	68.5	26.1	100.0
<b>Total</b>	4.1	0.8	2.1	51.0	42.1	100.0
<b>N</b>	49	9	25	612	505	1,200

Source: S2WTVET data

Note: this is for working as an employee for an existing business only, not starting own business.



### 3.5 Teacher versus student expectations

Using a small survey of teachers (N = 65) conducted alongside the baseline survey of students, we are able to compare students' labour market expectations to the teachers' predictions of the same students' prospects. The following analysis is for the 1,530 students who are matched with a teacher of the same subject and school.

In the teacher survey, teachers were asked what they expect a typical student from their class would earn in *one year* after graduating. In the student survey, students were asked what they expected to earn immediately after graduating, but they also give a value one year into the future (which matches the teacher's response). Both of these student-given salary expectations are shown next to the teacher's expectations, per course area, in Figure 13.

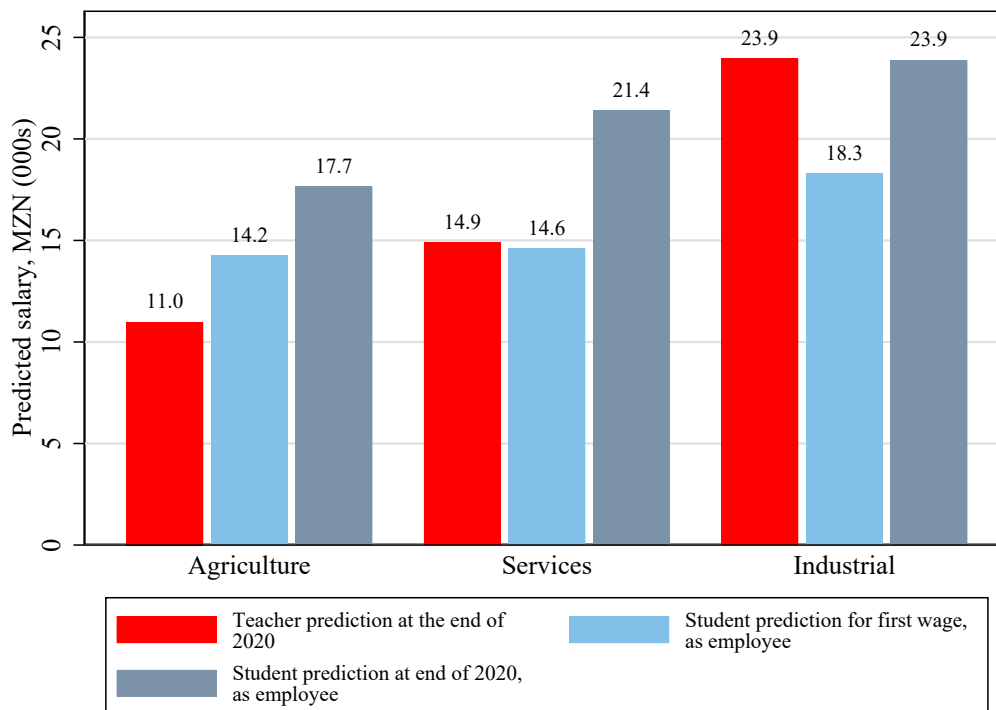
Figure 13 reveals some disparities between teacher and student expectations of salaries by study area. In Agriculture, both the first salary, and the salary after one year as expected by the student are significantly higher than the salary expected by their teacher. Teachers expect students to be earning an average of 11,000 MZN per month by the end of 2020, whereas the students expect to be earning 17,700 MZN per month (a difference of 60%).

In Services courses, students also expect to earn more than teachers predict. Here, students' salary expectations for their first job as an employee, at around 14,600 MZN per month, are close to what the teachers expect students to earn after one year. However, Services students expect their wages to increase much faster than predicted by teachers, rising to 21,400 MZN by the end of 2020. Such mismatches are of some concern, potentially showing a lack of communication between teachers and students regarding the labour market.

In Industrial courses, teachers' expectations for student salaries at the end of 2020 are closely matched to the students' own expectations for the same period. Students expect to earn less at the start of the year (18,300 MZN per month) but, by the end of 2020, expect to be earning in line with their teacher's expectations, at 23,900 MZN per month. This closer match may well reflect the greater exposure to the labour market (via internships) among Industrial course students.

Teachers were also asked about their expectations regarding the employment outcomes of students in their class after one year. Teachers were asked out of 10 finalists from their class, by the end of 2020 how many they would expect to be: unemployed, working odd-jobs, working in a small business, working in a medium or large business, working for the state, or continuing in

Figure 13: Teacher expected salaries vs student expected salaries, for first job and in one years time



Source: S2WTVET data.

Note: This uses a matched data set, where each teacher response is matched to the related students. N = 1,530, with 65 teachers matched to 1,530 students.

further study. The results of this exercise, expressed as percentages, are presented in Table 18.

Overall, teachers estimated that by the end of 2020, 18.7% of students would be unemployed (not engaged in an economic activity). This was highest for teachers of Agricultural students, who predicted over a quarter of their students would still be unemployed after one year. Note, this is at odds with what the students predicted, where less than 1% of students said they expected to still be looking for work in one year (although 52.3% of students said they did not know how long it would take).

Teachers estimated 19.2% of their students would be working in a small business (less than 25 employees). This was the modal prediction in Services, with just under a quarter of students being expected to work in small businesses, but also the least popular choice for Agriculture courses, at 8.3%. The teachers also estimated 17.1% of students would be undergoing some informal or irregular work, such as '*biscates*'. This is in line with what students said, with 16.2% of students saying they were open to doing '*biscates*' work. Although 42.1% of students expressed a preference for working in the public sector, the teachers predicted only 13.0% would do so by the end of 2020.

Finally, teachers expect 13.7% of students to continue on to further study, which is considerably less than what the students expressed, with 20.8% of students expressing the desire to study further in 2020.

Table 18: Teacher forecasts of graduate outcomes within 1 year (%)

	<b>Unemployed</b>	<b>Odd-jobs/ 'Biscates'</b>	<b>Small business</b>	<b>Medium/big business</b>	<b>Public employee</b>	<b>Further study</b>
	%	%	%	%	%	%
Agriculture	25.4	17.5	8.3	15.8	16.6	16.4
Services	15.3	17.7	23.4	18.5	12.9	12.3
Industrial	19.5	16.1	19.8	19.3	11.1	14.1
<b>Total</b>	18.7	17.1	19.2	18.3	13.0	13.7
<b>N</b>	1,530					

Source: S2WTVET data.

Note: This uses a matched data set, where each teacher's response is matched to the related students. There were 65 teachers matched to 1,530 students.

## 4 Conclusion

It bears repeating that this report is preliminary in nature since it concerns only a baseline rather than an end-line or final survey. Follow-up of students after they finish their studies (or go on to further studies) is currently ongoing and is expected to end in late 2020. As a result, it is not yet appropriate to draw specific policy recommendations.

Nonetheless some relevant issues, to be tested on the basis of the follow-up data, merit comment. First, the profile of TVET students suggest they come from comparatively advantaged families, at least relative to the average Mozambican. Less than 1 in 3 of the students come from families where the highest level of education is primary school. And, for the majority, someone in their family has waged work. Second, this is not surprising since the cost of TVET education is non-negligible – in public schools, students must find around 2,000 MZN per month (33 USD) to study; and in private schools the cost is over 5,000 MZN per month (roughly equivalent to a minimum wage).

Third, the subjective experiences of TVET students reveals some concerns. Many indicate that the access to and quality of equipment is a severe obstacle to learning, particularly outside of Maputo City and Maputo Province. Notably, these concerns seem to be stronger among students in non-public institutes as well as among students following modular courses, likely reflecting some teething problems in the introduction of these new courses. In addition, students seem somewhat concerned with their teachers – e.g., among Agricultural students almost 1 in 2 stated that teacher motivation and absenteeism represented a severe obstacle to their learning. A key point here is that while equipment deficiencies are no doubt relevant, management and motivation of teachers is also critical to the delivery of a high quality education.

Last, the majority of finishing TVET students intend to find some work in the course of 2020. While most are unsure how long it will take, income expectations are fairly optimistic, even compared with the expectations of their teachers. On average, having found work, graduating students expect to be earning more than 12,000 MZN per month (in any activity), which is around twice the minimum wage (based on the wages per sector agreed in April 2019, the sector-wide average is around 5,500 MZN / month). Tracking whether these expectations are realized will be critical to understand the real returns to TEVT education.

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## A Appendix: additional material

Table A1: List of courses by broad study area

Study area	Course name	Regime	Obs. (N)
Agriculture	Extensão	Modular	107
	Pecuária	Modular	41
	Agricultura	Modular	135
Industrial	Manutenção Industrial Mecânica	Modular	32
	Geologia	Modular	36
	Informática	Modular	4
	Química Analítica	Classic	23
	Quimica Analítica	Classic	2
	Mecânica Auto	Modular	54
	Minas	Modular	21
	Mecânica Industrial	Modular	70
	Eletrotécnica Industrial	Modular	3
	Petróleo e Gás	Classic	10
	Electricidade	Classic	2
	Mecânica Geral	Classic	19
	Electricidade Industrial	Modular	85
	Construção Civil	Classic	99
	Administração de redes de computadores	Modular	10
	Laboratório	Modular	35
	Programação de paginas web	Modular	14
	Manutenção Industrial Electrica	Modular	34
	Estadas e Pontes	Classic	6
	Quimica Industrial	Classic	4
	Sistemas Eléctricos Industrial	Classic	24
	Redes de Computadores e Telecomunicações	Classic	7
	Desenvolvimento de Sistemas Informáticos	Classic	12
Construção Hidráulica	Classic	8	

Table A1: List of courses by broad study area

<b>Study area</b>	<b>Course name</b>	<b>Regime</b>	<b>Obs. (N)</b>
	Construção de Edifícios	Classic	19
Services	Hotelaria e Restauração	Modular	16
	Gestão Bancária e de Seguros	Classic	9
	Saúde Pública e Gestão Ambiental	Classic	21
	Contabilidade e Gestão	Modular	4
	Gestão Aduaneira e Logística	Classic	21
	Contabilidade Vocacional	Modular	2
	Nutrição e Saúde	Modular	34
	Secretariado	Modular	8
	Contabilidade	Modular	153
	Gestão de empresas e Marketing	Classic	1
	Técnicos de Contas	Classic	27
	Técnico Aduaneiro	Classic	160
	Contabilidade e Auditoria	Classic	25
	Gestão de Negócios	Classic	1
	Gestão Empresarial	Classic	72
	Gestão	Modular	23
	Guias Turísticos	Modular	32
	Contabilidade Geral	Classic	61
	Técnico Jurídico	Modular	2
	Administração Pública	Classic	33
	Administração e Gestão de Recursos humanos	Classic	9
	Gastronomia	Modular	9

Source: S2WTVET data

## **B Appendix: baseline questionnaire**

The baseline questionnaire is reproduced in the following pages (in Portuguese, as originally administered).



## TVET alunos inquérito base

### Olá

Obrigado por participar. O inquérito vai levar 30-45 mins.

Por favor: responde a todas as perguntas, use o tempo necessário para responder da forma mais correcta possível, e não se distraia com os seus colegas.

### Por favor escreva o ID da sessão:

---

### Informação pessoal

Nesta secção gostavamos de perguntar algumas questões sobre você. Todas as respostas são confidenciais.

### Por favor escreva o seu PRIMEIRO nome

---

### Por favor escreva o ÚLTIMO nome

---

### Por favor indique o seu sexo

- Mulher
- Homem

### Por favor indique a sua idade

---

### Informação pessoal

**Em que província se localizava a escola onde frequentou a Educação Primária**

*(Se for mais que uma, escolha onde ficou mais tempo)*

- Cabo Delgado
- Gaza
- Inhambane
- Manica
- Maputo Cidade
- Maputo Província
- Nampula
- Niassa
- Sofala
- Tete
- Zambezia
- No estrangeiro / Outro

**Qual era o tipo de localidade em que estava a sua Escola Primária**

*(Se for mais que uma, escolha onde ficou mais tempo)*

- Aldeia
- Vila
- Cidade

**Que tipo de ensino frequentou logo antes de iniciar este curso?**

- Ensino secundário
- Ensino técnico-profissional (básico)
- Outro tipo de ensino

**Qual era o tipo de escola que frequentou logo antes de iniciar este curso**

- Pública Moçambicana
- Privada Moçambicana
- Organização Não Governamental, em Moçambique
- Comunitária, em Moçambique
- Religiosa, em Moçambique
- No Estrangeiro

**Qual foi a nota média que teve quando acabou este ensino anterior?**

---

**Ensino técnico-profissional**

Agora, temos algumas perguntas sobre o ensino técnico-profissional, esta escola, e também este curso.

**Em que ano começou este curso?**

---

**Em que ano espera terminar este curso?**

---

**Ensino técnico-profissional**

**O que lhe levou a optar por ensino técnico-profissional?**

*(Escolhe a razão principal)*

- Escolhi, por que era o que queria
- Escolhi, por causa das circunstâncias
- Alguem decidiu para mim
- Outra razão

**Quais eram as circunstâncias que lhe levaram a escolher ensino técnico-profissional?**

*(Pode escolher várias)*

- Chumbei no último ano em que andei no ensino geral
- Não podia pagar numa outra escola (preferida)
- Tive que começar a trabalhar
- Casei ou tive um/a filho/a
- Tive de mudar da casa
- Outra razão

**Porque escolheu esta escola (instituto)?**

*(Escolhe a razão principal)*

- É a escola técnica mais perto
- É a única escola técnica nesta zona
- É a única que oferece este curso
- A escola tem uma boa reputação
- Para estudar com amigos ou familiares
- Não tive escolha

**Olhando para trás, escolheria a mesma escola (instituto) de novo?**

- Sim
- Não
- Não tenho a certeza

**Porque escolheu este curso (área de estudos)?**

*(Escolhe a razão principal)*

- Acho que existem boas oportunidades de emprego nesta área
- Esta é a área que me interessa
- Alguem decidiu para mim
- Não tinha outra opção da escola ou curso
- Tenho familiares/amigos que trabalham nesta área
- Já tenho experiência de trabalho nesta área
- Outras razões

**Olhando para trás, escolheria o mesmo tipo de curso de novo?**

- Sim
- Não
- Não tenho a certeza

**Este semestre do ano lectivo, quantos meticais pagará à escola no total (p.ex., inscrição, propinas, exames etc.)?**

*(Põe 0 se é grátis; e põe 99999 se não sabes quanto paga)*

---

**Em cada mês, quantos meticais gasta com material escolar (livros, papel, etc.)?**

*(Põe 0 se não gasta nada; e põe 99999 se não sabes quanto gasta)*

---

**Em cada semana, quantos meticais gasta com transporte para esta escola/instituto (no total)?**

*(Põe 0 se não gasta nada; e põe 99999 se não sabes quanto gasta)*

---

**Até que ponto sua família está interessada naquilo que aprende no curso?**

- Muito interessada
- Ligeiramente interessada
- Pouco interessada
- Nada interessada

**Qual é a principal fonte de financiamento para os seus estudos?**

*(Escolha a mais importante)*

- Bolsa de estudos
- O rendimento do meu trabalho
- Apoio de familiares ou amigos
- Poupança
- Outra

**Experiência do mercado de trabalho**

Agora, temos algumas perguntas sobre as suas experiências do mercado de trabalho

**Já fez algum estágio académico (f.ex. como parte deste curso)?**

- Sim
- Não

**Quantos meses durou (ou dura) este estágio?**

*(Se teve vários, responde sobre o mais recente)*

---

**Em que tipo de organização fez este estágio?**

*(Se teve vários, responde sobre o mais recente)*

- Grande empresa (100+ trabalhadores)
- Média empresa (25-99 trabalhadores)
- Pequena empresa (5-24 trabalhadores)
- Micro empresa (1-4 trabalhadores)
- Outro

**Já fez algum estágio profissional (não como parte deste curso)?**

- Sim
- Não

**Quantos meses durou (ou dura) este estágio?**

*(Se teve vários, responde sobre o mais recente)*

---

**Em que tipo de organização fez este estágio?**

*(Se teve vários, responde sobre o mais recente)*

- Grande empresa (100+ trabalhadores)
- Média empresa (25-99 trabalhadores)
- Pequena empresa (5-24 trabalhadores)
- Micro empresa (1-4 trabalhadores)
- Outro

**Alguma vez realizou um trabalho pago (não um estágio)?**

- Sim
- Não

**Que idade tinha quando realizou um trabalho pago pela primeira vez**

*(Em qualquer trabalho)*

---

**Este trabalho foi na mesma área que você estuda agora?**

- Sim
- Não

**Quanto tempo durou (ou dura) este trabalho?**

*(Se teve mais do que um trabalho, refira-se ao que teve maior duração)*

- Até 6 meses
- De 7 meses a 1 ano
- 1 ano a 2 anos
- Mais de 2 anos

**Para que tipo de empregador trabalhou?**

- Uma empresa privada
- Uma instituição pública
- O negócio da minha família
- A machamba da minha família
- Uma organização sem fins lucrativos
- Por conta própria

**Raciocínio numérico**

Este é um exercício de raciocínio numérico. Para cada pergunta, há várias respostas alternativas. Somente uma das respostas é correcta em cada caso.

**Qual é o número combinado de leitores (em milhares) do Savana, Diário de Mocambique e Zambeze no Ano 1?**

image

*(Use '.' para o ponto decimal; se não sabe dizer, põe -99)*

---

**No ano 3, quanto a Alemanha gastou a mais do que a Itália (em milhões de euros)?**

image

*(Se não sabe dizer, põe -99)*

---

**Se o valor gasto pelo RU no ano 5 foi 10% menor do que no ano 4, quanto foi gasto pelo RU no ano 5?**

image

*(Se não sabe dizer, põe -99)*

---

### **Expectativas de emprego**

Agora temos perguntas sobre as suas expectativas de emprego após este curso. Queremos saber das suas expectativas com base na situação actual do país e não as suas expectativas num mundo ideal.

**Acha que tem informação suficiente sobre oportunidades de emprego?**

- Sim
- Nao

**Acha que tem informação suficiente sobre como encontrar um trabalho?**

- Sim
- Nao

**Se você estivesse a procurar emprego, como iria fazer?***(Pode escolher várias)*

- Através de anúncios nos jornais
- Contactar directamente possíveis empregadores, sem anúncio
- Através de estágios
- Através do Centro de Emprego
- Através de empresas de recrutamento
- Através da internet (p.ex. websites de emprego)
- Através de redes sociais (p.ex. Facebook)
- Através de família e amigos
- Não sei

**Qual é o aspecto que considera mais importante para a sua possibilidade de arranjar um bom emprego?***(Escolha só o mais importante)*

- As minhas capacidades académicas
- As minhas capacidades não académicas
- A forma como me apresento
- As referências dadas por famílias e amigos
- A minha experiência prévia profissional
- Não sei

**Depois de terminar este curso, o que planeia fazer?***(Escolha só o mais provável)*

- Continuar com o trabalho que já tenho
- Procurar um trabalho
- Procurar (continuar) um estágio
- Continuar a estudar
- Atender as responsabilidades familiares
- Não sei

**Tem a intenção de trabalhar ou procurar trabalho no próximo ano?**

- Sim, pretendo trabalhar
- Não pretendo trabalhar

**Trabalho por conta própria, inclusive biscate**



**Na sua área de formação, quando pessoas trabalham de forma independente, que tipo de trabalho é mais comum?**

*(Escolha o mais comum)*

- Trabalho tipo biscate
- Trabalho por conta própria
- Não sei / outro

**No mínimo, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês em realizar trabalhos por conta própria (ou biscate) a tempo inteiro?**

*(Tendo em conta a sua escolha à pergunta anterior)*

---

**No máximo, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês em realizar trabalhos por conta própria (ou biscate) a tempo inteiro?**

*(Deve ser mais que )*

---

**Em média, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês em realizar trabalhos por conta própria (ou biscate) a tempo inteiro?**

*(Deve ser entre e )*

---

**Você tem intenção ou de trabalhar por conta própria ou de fazer biscates?**

*(Escolhe o principal / mais provável)*

- Sim, tenciono trabalhar por conta própria
- Sim, tenciono fazer biscates
- Não

**Depois de terminar este curso, quantos meses acha que você vai levar até encontrar trabalho por conta própria ou biscates?**

*(Põe zero [0] se iniciará logo; e 999 se não tem ideia quanto tempo)*

---

**Quantos dias por semana acha que vai dedicar ao trabalho por conta própria ou a fazer biscates?**

*(Tendo em conta a sua escolha anterior; cinco dias por semana, é a tempo inteiro)*

---

**No mínimo, por quanto dinheiro por mês você aceitaria a realizar trabalho por conta própria ou biscates?**

---

No seu primeiro trabalho depois deste curso, por mês quanto dinheiro acha que você vai ganhar em realizar trabalho por conta própria ou biscates?

---

Em Dezembro de 2020, por mês quanto dinheiro acha que você vai ganhar em realizar trabalho por conta própria ou biscates?

---

**Emprego por conta de outrem (p.ex. numa empresa)**

No mínimo, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês trabalhando a tempo inteiro por conta de outrem?

---

No máximo, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês trabalhando a tempo inteiro por conta de outrem?

*(Deve ser mais que )*

---

Em média, quanto dinheiro acha que uma pessoa recém-formada neste curso recebe por mês trabalhando a tempo inteiro por conta de outrem?

*(Deve ser entre e )*

---

Você tem intenção de procurar emprego por conta de outrem (p.ex. numa empresa)?

Sim

Não

Depois de terminar este curso, quantos meses acha que vai levar até encontrar um emprego por conta de outrem?

*(Põe zero [0] se iniciará logo; e 999 se não tem ideia quanto tempo)*

---

Quantos dias por semana acha que vai dedicar a emprego por conta de outrem?

*(Cinco dias por semana, é a tempo inteiro)*

---

No minimo, por quanto dinheiro por mês você aceitaria num emprego por conta de outrem?

---

No seu primeiro emprego por conta de outrem depois deste curso, por mês quanto dinheiro acha que você vai ganhar?

---

Em Dezembro de 2020, por mês quanto dinheiro acha que você vai ganhar num emprego por conta de outrem?

---

**Se pudesse escolher, para que tipo de empregador gostaria de trabalhar?**

*(Escolha uma opção)*

- Sector público (como empregado/a)
- Sector privado (como empregado/a)
- Organização sem fins lucrativos (como empregado/a)
- Negócio familiar (como empregado/a)
- Não sei

**Se pudesse escolher, qual é o tamanho da empresa ou organização onde gostaria de trabalhar?**

*(Escolha uma opção)*

- Grande empresa (100+ trabalhadores)
- Média empresa (25-99 trabalhadores)
- Pequena empresa (5-24 trabalhadores)
- Micro empresa (1-4 trabalhadores)
- Outro

### **Raciocínio verbal**

No texto a seguir, lê-se algumas informações. É preciso ler o texto. Depois, responde-se a quatro afirmações sobre o texto. Para cada afirmação, seleciona-se uma das possíveis respostas:

Verdadeiro = A afirmação é uma consequência lógica das informações ou opiniões contidas no texto

Falso = A afirmação é logicamente falsa, consideradas as informações ou opiniões contidas no texto

Impossível dizer = Impossível determinar se a afirmação é verdadeira ou falsa sem mais informações

### **Raciocínio verbal**

"Muitas empresas acham vantajoso empregar estudantes durante o Natal. O pessoal permanente costuma desejar tirar férias nesse período. Além disso, não é raro ocorrerem picos de carga de trabalho durante o Natal, que exigem mais pessoal. Os empregos de Natal também atraem estudantes que podem retornar à empresa depois de terminarem seus estudos. Garantir que os estudantes aprendam o máximo possível sobre a empresa estimula o interesse em um emprego permanente. As empresas pagam aos estudantes um valor fixo, mas sem direito a férias remuneradas ou licença por motivo de saúde.

**Afirmção 1 - Os estudantes com empregos de Natal recebem os mesmos benefícios de férias remuneradas que o pessoal permanente.**

- Verdadeiro
- Falso
- Impossível dizer

#### **Raciocínio verbal**

"Muitas empresas acham vantajoso empregar estudantes durante o Natal. O pessoal permanente costuma desejar tirar férias nesse período. Além disso, não é raro ocorrerem picos de carga de trabalho durante o Natal, que exigem mais pessoal. Os empregos de Natal também atraem estudantes que podem retornar à empresa depois de terminarem seus estudos. Garantir que os estudantes aprendam o máximo possível sobre a empresa estimula o interesse em um emprego permanente. As empresas pagam aos estudantes um valor fixo, mas sem direito a férias remuneradas ou licença por motivo de saúde.

**Afirmção 2 - Algumas empresas empregam estudantes durante o Natal no lugar de pessoal permanente que esteja de férias.**

- Verdadeiro
- Falso
- Impossível dizer

#### **Raciocínio verbal**

"Muitas empresas acham vantajoso empregar estudantes durante o Natal. O pessoal permanente costuma desejar tirar férias nesse período. Além disso, não é raro ocorrerem picos de carga de trabalho durante o Natal, que exigem mais pessoal. Os empregos de Natal também atraem estudantes que podem retornar à empresa depois de terminarem seus estudos. Garantir que os estudantes aprendam o máximo possível sobre a empresa estimula o interesse em um emprego permanente. As empresas pagam aos estudantes um valor fixo, mas sem direito a férias remuneradas ou licença por motivo de saúde.

**Afirmção 3 - Os estudantes com empregos de Natal estão sujeitos às normas disciplinares e de resolução de problemas laborais da empresa.**

- Verdadeiro
- Falso
- Impossível dizer

#### **Família e condições de vida**

Nesta secção temos algumas perguntas sobre o seu contexto familiar

**Qual é (era) o nível de educação da sua mãe?**

- Sem educação formal
- Ensino Primário
- Ensino Secundário
- Ensino Técnico-Profissional básico
- Ensino Técnico-Profissional médio
- Ensino Superior
- Outro / não sei

**Qual é (era) o nível de educação do seu pai?**

- Sem educação formal
- Ensino Primário
- Ensino Secundário
- Ensino Técnico-Profissional básico
- Ensino Técnico-Profissional médio
- Ensino Superior
- Outro / não sei

**Qual era o tipo de trabalho mais importante na família onde cresceu?**

*(Escolha uma opção)*

- Assalariado numa instituição pública
- Assalariado numa empresa ou organização privada
- Dono(a) de uma empresa não agrícola
- Trabalhador por conta própria na agricultura
- Trabalhador por conta própria em actividades não agrícolas
- Outro / não sei

**Teve que mudar de casa para estudar neste instituto/escola?**

- Sim
- Não

**Com quem vive actualmente?***(Escolha todas as opções aplicáveis)*

- Na minha família nuclear (avós, pais, irmãos)
- Na minha família estendida (incluindo também tios, primos e outros parentes)
- Com amigos ou outros estudantes numa residência privada
- Com a esposa ou esposo
- Sozinho(a)
- Sem teto

**Tem alguma(s) criança(s) sua(s)?**

- Sim
- Não

**Está casado(a)?**

- Sim
- Não

**Sabe algumas destas línguas locais?***(Escolha todas as opções aplicáveis)*

- Emakhuwa
- Cisena
- Xichangana
- Elomwe
- Cishona
- Xitswa
- Xironga
- Outra(s)
- Nenhuma

**Sabe falar Inglês?**

- Sim
- Não

**Qual é a qualidade das suas capacidades de falar e escrever em Inglês?**

- Apenas uma capacidade básica
- Capacidade de falar e escrever em situações profissionais, mas limitada
- Boa capacidade de falar e escrever em situações profissionais
- Inglês é a minha língua nativa ou sou fluente em Inglês

Agora, temos perguntas sobre a sua casa onde vive agora (ou a casa da sua família, se não residir com eles)

**Como a casa é construída?**

*(Escolha o principal)*

- Caniço, Paus, Lata, Cartão ou Papel
- Bloco de Adobe
- Madeira e Zinco
- Bloco de Tijolo
- Bloco de Cimento

**Com que material é feito o telhado (teto) da casa?**

*(Escolha o principal)*

- Capim, Colmo, Palmeira, ou outros
- Chapa de zinco
- Chapa de fibrocimento (p.ex., Lusalite)
- Telha
- Laje de betão

**Como se abastece de água na casa?**

*(Escolha o principal)*

- Fonte natural (fontanário, nascente, rio)
- Poço sem bomba manual
- Poço com bomba manual
- Água canalizada fora de casa / quintal
- Água canalizada dentro de casa

**Como melhor descreve a retrete/latrina da casa?***(Escolha o principal)*

- Sem retrete nem latrina
- Latrina tradicional (não melhorada)
- Latrina melhorada
- Retrete sem autoclismo dentro da casa ou com autoclismo fora de casa
- Retrete com autoclismo dentro da casa

**Como a casa é iluminada?***(Escolha o principal)*

- Baterias, pilhas ou lenha
- Velas
- Gás, Petróleo ou Querosene
- Gerador ou uma placa solar
- Electricidade da rede pública

**Quais dos seguintes equipamentos tem (em casa)?***(Escolha todas aplicáveis)*

- Rádio
- Televisão
- Telefone fixo ou móvel
- Computador
- Internet
- Ferro de engomar
- Fogão a carvão / lenha
- Fogão eléctrico / a gás
- Geleira / Congelador
- Carro
- Motorizada
- Bicicleta

**Qual é a forma que segue o padrão?**

Nesta secção mostramos imagens que têm padrões em comum. Por favor, tente identificar, a imagem que segue o padrão apresentado.



**Qual é a forma que segue o padrão?**

image

- 1
- 2
- 3
- 4
- 5
- 6

**Qual é a forma que segue o padrão?**

image

- 1
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**Qual é a forma que segue o padrão?**

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**Qual é a forma que segue o padrão?**

image

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Qual é a forma que segue o padrão?**

image

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Qual é a forma que segue o padrão?**

image

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Experiência deste curso**

Agora, temos algumas perguntas sobre este curso e sua experiência nesta escola

**A sua escola já organizou encontros com empregadores (p.ex. feira de emprego)?**

- Sim
- Não

**Tanto quanto sabe, irá receber um certificado quando graduar do seu curso?**

- Sim
- Não
- Não tenho a certeza

**Pensa que os empregadores vão querer ver um certificado (do ensino técnico) quando se candidatar a emprego?**

- Sim
- Não
- Não tenho a certeza

**Pensa que sem um certificado, terá dificuldades em obter o emprego que deseja?**

- Sim
- Não
- Não tenho a certeza

Obstáculos à aprendizagem

Para cada aspecto abaixo, indique até que ponto ele representa um obstáculo a sua aprendizagem neste curso:

	Sério	Moderado	Ligeiro	Nenhum
<b>Acesso aos materiais escolares (e.g., livros, manuais)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Qualidade dos materiais escolares (e.g., livros, manuais)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Acesso aos instrumentos ou equipamento suficiente para aulas práticas</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Até que ponto representa um obstáculo ...

	Sério	Moderado	Ligeiro	Nenhum
<b>Qualidade dos instrumentos para aulas práticas</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Relevância das técnicas e competências ensinadas ao mercado de trabalho</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Motivação / presença dos professores</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Até que ponto representa um obstáculo ...

	Sério	Moderado	Ligeiro	Nenhum
<b>Conhecimento técnico dos professores</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Conhecimento dos professores sobre o mercado de trabalho</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Comportamento dos professores (para com alunos)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Como melhorar a aprendizagem**

Se pudesse decidir, quais seriam as duas prioridades para melhorar a aprendizagem nesta escola?

*(Escolha uma 1ª e uma 2ª da lista suspensa)*

**1ª escolha**

- Investir em equipamento específico deste ofício, para os estudantes usarem
- Investir em manuais escolares  Melhorar a escola e as suas infraestruturas
- Melhorar a qualidade dos professores
- Formação em "soft skills" e empresariado

**2ª escolha**

- Investir em equipamento específico deste ofício, para os estudantes usarem
- Investir em manuais escolares  Melhorar a escola e as suas infraestruturas
- Melhorar a qualidade dos professores
- Formação em "soft skills" e empresariado

## Motivação pessoal

Agora vai ler uma série de frases. Queremos saber até que ponto você concorda ou não com cada uma

	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
<b>Estou feliz com quem eu sou</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Consigo realizar as coisas que eu tenciono fazer</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Gosto de competir com outras pessoas</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Motivação pessoal

	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
<b>Decido as minhas acções com base no meu gosto</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Decido as minhas acções pelo seu valor (se valem a pena ou não)</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Executo os meus projectos até o seu fim</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Motivação pessoal

	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
<b>Por vezes não consigo evitar fazer coisas que sei que são erradas</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<b>Não penso muito sobre o modo como eu aprendo</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Equipas funcionam bem quando as estou a liderar</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivação pessoal				
	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
<b>Quando trabalho em equipa, gosto de ajudar os outros a alcançar o que necessitam</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Para mim, é fácil conversar com novas pessoas</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Para mim, é fácil realizar as tarefas mesmo quando há dificuldades</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Motivação pessoal				
	Discordo totalmente	Discordo parcialmente	Concordo parcialmente	Concordo totalmente
<b>Para mim, é fácil pensar em novas formas de fazer as coisas, quando necessário</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Sou uma pessoa boa a planear para o futuro</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Prefiro actividades que tem riscos limitados</b>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Contactos no futuro**

Gostaríamos de manter o contacto consigo através de telemóvel ou email ao longo dos próximos 12 meses. Gostaríamos de o fazer para conhecer a experiência dos estudantes depois do ensino. **\* Para cada participação no futuro, receberá um crédito no seu celular \***

**Poderíamos contactar-lhe através de telemóvel?**

- Sim
- Não

**Qual é o número de telemóvel que usa ou tem acesso com mais frequencia?**

*(Inclua o identificador da operadora; digite sem espaços)*

---

**Tem um segundo telemóvel ou número que também usa?**

- Sim
- Nao

**Qual é o número deste contacto alternativo?**

*(Inclua o identificador da operadora; digite sem espaços)*

---

**Contactos adicionais**

**Caso o número anterior não funcione, por favor indique o número de telemóvel de um(a) seu(sua) amigo(a) próximo(a)**

*(Inclua o identificador da operadora; digite sem espaços)*

---

**Por favor escreva o nome desse(a) amigo(a)**

---

**Caso os números anteriores não funcionem, por favor indique o número de telemóvel de um(a) seu(sua) familiar próximo(a)**

*(Inclua o identificador da operadora; digite sem espaços)*

---

**Por favor indique o nome desse(a) familiar próximo(a)**

---

**Poderíamos contactá-lo(la) através de email?**

- Sim
- Não

**Por favor, indique o seu email**

---

É muito importante para o nosso estudo que possamos entrar em contacto com você no futuro. Se deseja reconsiderar suas informações de contacto, clique em Voltar ("Back"). Se você não deseja que entremos em contato com você no futuro, clique em Avançar ("Next").

Parabéns, chegou ao fim! Por favor deslize para a esquerda e chame um dos inquiridores para recolher o seu tablet. Muito obrigado!