VOCATIONAL SUBJECTS AT SECONDARY EDUCATION CERTIFICATE (SEC) LEVEL: INTRODUCTION, IMPLEMENTATION AND RESULTS

A Report by the Matriculation and Secondary Education Certificate (MATSEC) Support Unit

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MATSEC Support Unit
University of Malta

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ITS – Institute of Tourism Studies

LAP – Learning and Assessment Programme

LO – Learning Outcome

MATSEC – Matriculation and Secondary Education Certificate

MCAST – Malta College of Arts Science and Technology

MQF – Malta Qualifications Framework

PSAO – Principal Subject Area Officer

SEC – Secondary Education Certificate

UoM – University of Malta

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Executive Summary

This report has been produced with the intention of providing relevant information and feedback about the structure and implementation of SEC vocational subjects based on the 2014/15 pilot project in Maltese secondary schools. It is hoped that this information be used to substantiate or reject claims based on myths and anecdotal information about this project. It is hoped that this material can be used to stimulate rational discussion and shape Maltese education based on existing experience.

The most evident conclusion of this report is that teachers and internal verifiers appear to be working closely together and the work produced by themselves and the candidates is, generally, of a very high standard. As one SMT member pointed out, this interest and collaboration is a recipe for success in any educational innovation. "Collaboration is integral not only to the technical dimension of reform endeavours, but to the cultural dimension. (…) Collaboration is a powerful stimulus for the reflection which is fundamental to changing beliefs, values and understandings" (Anderson, 2002 p.9). All involved parts feel strongly about the project and believe it is being the success that might inspire best practice in Maltese education.

Although teachers initially suggested relocating the first external verification closer to the beginning of the scholastic year to better guide teachers, they later noted that this would not allow for any verification of actual work. Thus, they suggested that more help should be given by the DQSE's and the Secretariat for Catholic Education in the form of support visits. On the other hand, it was proposed that the second external verification visit be moved by a week or two to extend teaching time and reduce the post-controlled assessment period which is somewhat idle.

1. More help from Heads of Department (DQSE and Secretariat for Catholic Education) especially at the beginning of the year to new teachers.
2. Relocate the second external verification to the third or last week of June to maximise teaching time.

The system of verification is effective and in place although three teachers saw the potential of improvement. This is likely to depend on the appointed external verifiers by the MATSEC Examinations Board. In addition, a number of teachers experienced shortcomings from school SMT members who did little to safeguard the quality of the project. Feedback from teachers and internal verifiers to the MATSEC Support Unit can help to identify such cases, along with other possible shortcomings, so that alleged limitations can be assessed and improved.

3. Keep communication between the MATSEC Support Unit and other stakeholders as open as possible to identify strengths and shortcomings.

Teachers need to be supported with the appropriate tools. Although improvements in school resources and collective agreements regulating their new role are beyond the remit of the MATSEC Support Unit and MATSEC Examinations Board, syllabi need to be revised to identify and correct any shortcomings. Syllabus panels should also aim to identify potential text or reference books related to the subject at hand. Moreover, documentation for the student and staff handbooks should be centrally set by the MATSEC Support Unit and presented to the MATSEC Examinations Board.

Guidance should be available about the setting of good marking schemes since a few of this year's team experienced problems with this.

4. Revise the syllabi for existent SEC vocational subjects to rectify any difficulties pointed by educators, such as in the expected content levels, linking of content and classification of grading criteria.
5. Centrally set documentation for the student handbook and staff handbook. Include information on what is expected in a marking scheme.

The correlation between the three assessments is quite high, indicating that measures to ensure fairness and validity were in place. Although the pass rate is high, it should be noted that these students were selected, for example on the basis of motivation, through an interview and have worked hard throughout the year. However, teachers who are not involved in the teaching of SEC vocational subjects complained about the marketing for the assessment of SEC vocational subjects being done in schools, alluding that it is being presented as something that is 'easy' and 'stress-free'. Although avoiding a final high stakes examination, such certification is not stress free and students elsewhere have noted the stress associated with constantly being assessed (Elwood, 2012).

6. SEC vocational subjects should not be projected as stress-free routes to qualifications: students ought not be given a false impression of these subjects.

The classification of assignments as 'take-home' and 'practical' was deemed inaccurate by many respondents arguing that both assignments have 'take-home' and 'practical' elements. They suggested renaming these to something as simple as Assignment 1 and Assignment 2. The majority of teachers and students noted that assessments need to be divided into shorter tasks. The occurring practice of dividing an assessment in shorter tasks collected at specific task deadlines should be structured by the provision of guidelines. While, where applicable, task deadlines should be official, the only two disagreeing teachers suggested these cannot be exactly pointed out on assignment briefs due to fluctuating school schedule of events. Teachers for Engineering Technology were the only ones not to make use of tasks and argued that the practice of tasks should not be imposed on them. Interviewed teachers and students held that subjects are different and need to be assessed differently.

7. Consider renaming the 'take-home' and 'practical' assessments.
8. Provide guidelines on the existent practice of tasks and task deadlines.

The controlled assessment proceeded with little hitches. A widespread problem was the time allocation as candidates finished quite early. It is suggested that the time for the controlled assessment, which assesses a third of a unit, is reduced to 1 ½, rather than 2, hours. This would result in the total sum of written examinations' time for a SEC vocational candidate being 4 ½ hours, which is similar to the 4 hours typically expected in other SEC subjects. The synoptic assessment also seems to have functioned properly by allowing a second chance for candidates who, for some reason or another, did not perform well enough in the unit. To aid both candidates and MATSEC Support Unit staff to better prepare for the synoptic session, it is suggested that this be moved to later on during the year, possibly coinciding with the September session as per other SEC resit examinations.

9. Consider changing the time allocated for controlled assessment to 1 ½ hours each.
10. Consider having the synoptic assessment later on during the year, possibly as part of the September session.

The running of the sessions in eight examination centres, including support personnel, proved that the physical demands of such project should not be underestimated. These are to be critically analysed for the coming years as the number of candidates and centres increases. An external verifier pointed out that in the future it will be practically impossible for any one verifier, typically employed elsewhere and not directly with the MATSEC Support Unit, to externally verify all the schools teaching a particular SEC vocational subject.

11. The physical and human resources required for future years are to be thoroughly assessed before the start of the year.

Participants believe that SEC vocational subjects could offer an alternate route for students who have vocational interests and/or perform better in continuous, rather than summative, assessment. Thus, many participating teachers lamented about the proposed selection process for students interested in SEC vocational subjects. They argued that filtering interested students based on expert judgement from the SMT and marks obtained in Year 8 (Form 2) through summative assessments in subjects that are mostly academic oriented defeats the very purpose of offering vocational routes. Rather than filter weak students out, teachers believe that these should be offered a route to lower qualifications. Many held that the MATSEC Examinations Board should consider providing MQF Level 1 qualifications for various subjects, including but not limited to vocational subjects.

12. Students opting for SEC vocational subjects should not be filtered based on the results of the previous year's summative assessment in mostly academic oriented subjects.
13. The MATSEC Examinations Board should consider the provision of MQF Level 1 qualifications for various subjects.

This study has also served to develop seemingly strong links between the MATSEC Support Unit, teachers and verifiers. It is hoped that this relationship of critical friendship is pursued with all parties contributing to the other's betterment. This study has also proven a potential tool to develop links with candidates and have both parts hear each other out, exposing the humans behind candidate index numbers to those behind the setting up of SEC examinations.

Comments on this report and any recommendations on improving this or similar documents published by the MATSEC Support Unit are welcome. These are to be addressed to Mr. Gilbert John Zahra, Principal Subject Area Officer (Assessment Research and Development), MATSEC Support Unit, University of Malta on Tel: 2340 3965 or email: gilbert.j.zahra@um.edu.mt. Recommendations or queries on SEC Vocational Subjects are to be addressed to Mr. Malcolm Micallef, Principal Subject Area Officer (Vocational Subjects), MATSEC Support Unit, University of Malta on email: malcolm.micallef@um.edu.mt.

The Design of SEC Vocational Subjects

Origins

MQF Level 3 vocational subjects were offered by the Malta College of Arts, Science and Technology (MCAST) and the Institute of Tourism Studies (ITS) in 2002/3 (MCAST Deputy Principal, personal communication, May 20, 2015). Some of these were awarded by the Edexcel within the BTEC brand which defines vocational learning as "applied learning" conveying "practical knowledge and skills" (Pearson Education, 2015). Others were awarded by other awarding boards.

Given that the First Diploma is equivalent to a Level 3 on the Malta Qualifications Framework (MQF), measures were taken to also offer such vocational subjects in secondary schools. Such move would fulfil the National Curriculum Framework's promise that "due importance (be given) to vocational subjects in the Secondary Education Cycle with the scope of providing more diverse pathways of learning leading students to new skills and to new jobs" (Ministry of Education and Employment, 2012 p.14).

In the scholastic year 2011/12, a number of students started studying BTEC subjects in secondary schools. According to the Adviser at the Ministry of Education and Employment (personal communication, May 26, 2015), the introduction of vocational subjects aimed to:

- Introduce students to vocational education training and provide certification;
- Value vocational education at a level that is at par with more academic forms of education at secondary level;
- Provide a more relevant and meaningful form of education to attract students who disengage with academic education and risk becoming early school leavers;
- Provoke a shift away from formal learning and written summative assessment to a learning progression process that values continuous assessment and experiential learning. This should widen and augment secondary education with the hope of developing students into autonomous learners.

Amongst the advantages of this system are more formative assessment; a modular approach; well-identified criteria; clearly specified learning outcomes and grading criteria; and very good verification measures (MCAST Deputy Principal, personal communication, May 20, 2015). Thus, ten years down the line, in 2012/13 moves were taken by MCAST and ITS to develop a local system to manage and assess vocational subjects. A localised system would allow for contextualised knowledge, lower fees for both the institution and the candidates and, hence, widened access. This system also allowed for more flexibility as candidates who failed a grading criterion no longer necessarily failed the whole unit.

Following a number of meetings with stakeholders, it was decided that BTEC subjects offered at secondary schools should also be localised and become possibilities in one's Secondary Education Certificate (SEC). SEC Agribusiness was also included. This initiative would expose vocational education, showing its differences and similarities with a traditional, more academic education (MCAST Deputy Principal, personal communication, May 20, 2015). This development would ensure that a wider range of students are attended to in educational institutions and leave compulsory schooling with a set of certificates that indicate their current knowledge, skills and competences.

This should be done through syllabi that are localised, hence allowing for contextualised learning and more accessible fees, and continuous assessment. This raison d'être is similar to that for the move from GCSEs to local SEC examinations back in 1991 (Grima & Ventura, 2006) and, as happened back then, MATSEC was entrusted with this move.

Syllabi, Assessment and Verification

Local syllabi for vocational subjects at MCAST and ITS were created. These subjects were spread along six units each. Afterwards, SEC syllabi for these subjects were designed by MCAST and ITS staff and vetted by the teachers who were involved in the delivery of the BTEC pilot. This process happened in February 2014. Syllabi for the following five SEC vocational subjects were designed (The Adviser at the Ministry of Education and Employment, personal communication, May 26, 2015). More vocational SEC subject syllabi are underway.

- SEC 35: Agribusiness
- SEC 36: Health and Social Care
- SEC 37: Engineering Technology
- SEC 38: Hospitality
- SEC 39: Information Technology

Each SEC vocational subject was designed such that it consisted of three units, one per year of secondary education following one's subject choice. Each unit has from three to six learning outcomes, most commonly five. Learning outcomes are assessed through different assessment criteria adding to a total of eighteen assessment criteria per unit. These assessment criteria are of three types – knowledge, comprehension, and application – and the marks allotted to each one are stated, as shown in the table below.

Table 1:   Assessment Criteria and their Weighting

Type	Total Number of Assessment Criteria	Marks per Assessment Criteria	Weighting
Knowledge (K1 to K10)	10	4	40%
Comprehension (C1 to C5)	5	6	30%
Application (A1 to A3)	3	10	30%
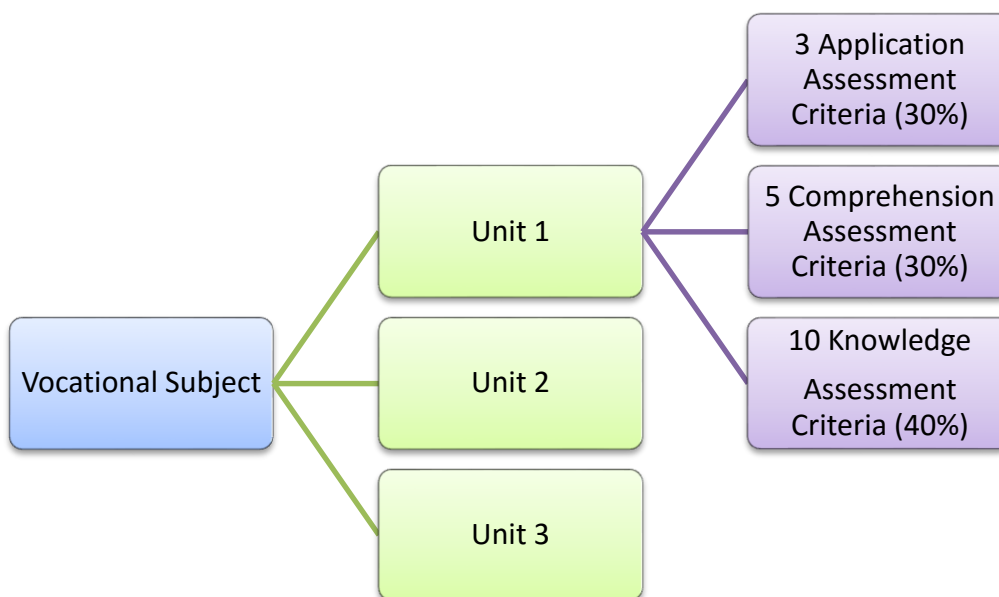
Figure i: Structure of SEC Vocational Subjects

Other SEC subjects are assessed through various means depending on the subject, however, in practically all instances; a summative, norm-referenced examination determines the final mark and the grade awarded to candidates. On the other hand, BTEC subjects were assessed through continuous, criterion-referenced means. This system had a number of issues that were considered problematic within the local context and, hence, needed to be addressed. These included that:

- failing one pass grading criterion would disqualify a candidate from obtaining a qualification in the whole subject, regardless success in achieving all other criteria, and
- obtaining a distinction in all assessments and failing a single merit or distinction criterion would only qualify a candidate for a pass in that unit.

Vocational SEC subjects are assessed modularly through continuous assessment with measures adopted to address these perceived difficulties. As such, a hybrid system aiming to incorporate the advantages of both types of assessment was designed.

In the scholastic year 2014/15, each unit was assessed by means of three assessments:

Table 2:   Types of Assessments per Unit

Assessment	Information	Marks
Take-home assessment	Designed by the school	26 to 34%
Practical assessment	Designed by the school	26 to 34%
Controlled assessment	Designed by MATSEC	38 to 42%

The controlled assessment is designed by MATSEC and must be carried out under controlled school environment. For this first year, it was planned for the 25th May 2015. The controlled assessment must be between one and two hours duration and be mainly written. Ultimately, two-hour long tests

were designed for this year. This ensures some similarity between vocational and existing SEC subjects which are, ultimately, of equal MQF level.

Teachers for vocational subjects are entrusted with the implementation and correction of all three assessments. Although the ultimate scope of assessment is the formation of individuals, it must be of the required standard, quality and level while ensuring that it is fair for all learners, valid and reliable. "Quality, equity and fairness in assessment imply that candidates should be given due credit for their work" (Izard, 2003 p.15). To ensure that these requirements are satisfied, vocational SEC subjects rely on a system of verification as shown in the table below.

Table 3:   System of Verification for the Assessment of SEC Vocational Subjects (adopted from the syllabi for these same subjects)

Internal Verification of Assessment Briefs	All assessment briefs are to be internally verified before being issued to the candidates. Within this process important checks relating to learning outcomes, criteria to be assessed, validated and reliability are to be performed.
Internal Verification of Assessment Decisions	Once learners complete their work, and assessments have been corrected, a representative sample of learners work is to be internally verified. This year, all assessments were verified.
External Verification	The process of external verification will ensure that programme quality and standards criteria are met.

Internal verifiers are appointed by the school / college administration and are, where possible, teachers within the same institution who teach the same vocational subject. Teachers and internal verifiers are expected to work as a group and discuss together about good practice, including measures adopted to safeguard standards. Educational institutions are also expected to have a member of the senior management team (SMT) to be in charge of the quality assurance of the vocational subject within his/her school. This SMT member will keep a Masterfile (Appendix A) to make liaison with the MATSEC Support Unit more effective. This file will contain records of teaching and learning along with policies. For example, each corrected assessment is to be accompanied by a feedback sheet (Appendix B) and, while a copy will be given to the student, another copy will be placed in this Masterfile.

External verifiers, on the other hand, are appointed by the MATSEC Examinations Board. They visit the schools in March and June for Year 9 and 10 (Forms 3 and 4) candidates and in April for Year 11 (Form 5) candidates (not applicable for this year). For non-vocational SEC subjects having some school-based assessment contributing to the candidate's grade, MATSEC employs a system of moderation whereby a moderator is sent to a sample of educational institutions offering the subject to check the work done by candidates and corrected by teachers. Although the practices of moderation and external verification have similar scopes (maintaining standards), there are differences between the two processes. Unlike moderators, external verifiers are expected to visit all schools twice a year; spend a whole school day there; communicate with the SMT, teachers and students; and complete a report. Increased contact between educators and moderators/verifiers is more likely to develop a dialogue and result in pedagogical development, but it also increases the likelihood of the moderator/verifier becoming accustomed to current practice rather than seek ways of improvement (MATSEC Review Committee, 2005).

Grading criteria can feature in only one assessment. This means that, although all grading criteria must be assessed, candidates will be assessed on a particular grading criterion only once. In order to allow teachers to design the take-home and practical assessments, the grading criteria that will be addressed in the controlled assessment are communicated by the MATSEC Support Unit in the beginning of the scholastic year.

Although the initial idea was to have SEC vocational teachers also design the controlled assessment, in a meeting the teachers argued that a centrally set examination would help in ensuring that a similar level is attained by candidates irrespective of the educational institution they attended. To indicate the level achieved by schools before setting the controlled assessment, MATSEC asked teachers to submit sample questions. Sample controlled assessment papers were uploaded on the MATSEC website in mid May 2015[1].

Like other SEC subjects, candidates can be awarded grades 1-7 for SEC vocational subjects. Grades below 7 remain unclassified (U). Unlike other SEC subjects, however, the pass mark for vocational SEC subjects is known. To be awarded a grade 5 or better (MQF level 3) a minimum of 50 marks in each of the three units must be obtained. Candidates who do not satisfy this requirement but who, after attempting all assessments, obtain a total mark exceeding 120 marks may be eligible for Grades 6 or 7, which are of MQF level 2. Also, while candidates applying for other SEC subjects have to choose between Paper IIA (Grades 1-5) and a less demanding Paper IIB (Grades 4-7), in SEC vocational subjects the whole range of grades is obtainable from the same assessment tools.

Candidates who are unable to hand in the take home or practical assessment in time should approach the person in charge of quality assurance and ask for an extension. This can only be permitted if there is evidence of an extenuating circumstance. A record documenting the reason for extending the assessment period for particular candidates should be kept in the Masterfile. Marks were to be submitted to MATSEC by the 19th June. Candidates were to be informed of their mark by their teachers and had a week to appeal should they not agree with this mark at which point the marking of their assessments would be revised by an independent marker (Reviser). The registration fee for this is of 35 Euro. No candidate applied for this service.

Candidates who fail a unit, have not been granted an extension to finish the take home and/or practical assessment, or have not obtained an average of 50% on completion of the three tasks, may apply for a resit which is a synoptic assessment centrally designed and corrected by the MATSEC Examinations Board. This year, candidates had to apply for this assessment at the MATSEC Support Unit between the 22nd and 26th June 2015 against a registration fee of 15 Euro and a fee of 21 Euro per subject. The synoptic assessment targets all learning outcomes and as many grading criteria as possible. It is mainly or wholly a written form of assessment. The mark obtained through this resit replaces the global average for the unit but may not exceed 60%. Students who miss the controlled school assessment for a valid reason may also sit for this synoptic assessment. The mark gained by these candidates can be up to 100%. It is then calculated in proportion to the mark allocated for the controlled assessment such that it can replace this mark. However, such candidates are assessed on

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[1]   These   are   available   on   this   page   of   MATSEC's   website:
http://www.um.edu.mt/matsec/assessment/sample_assessments/specimenpapers2

some of the grading criteria but covering all learning outcomes in the synoptic assessment even though they would have had already satisfied these in the practical and take home assessments.

Candidates who fail this synoptic assessment can re-sit for the examination one other time only in the following year and gain a mark not exceeding 60%. Candidates have a week's time to appeal from the mark given for the whole unit against a registration fee of 35 Euro. In such case, a Reviser reviews all the candidate's papers as in other SEC subjects' revision of papers.

The three units and relevant learning outcomes for each of the vocational SEC subjects are shown below.

Table 4: Vocational SEC Subjects' Units and Learning Outcomes

SEC 35: Agribusiness	1. Plant and Soil Science	LO1. Describe the main morphological and anatomic traits of the most common horticultural plants. LO2. Understand the basic concepts of genetics and how these are applied to plant science. LO3. Describe the main processes of plant physiology. LO4. Understand the purpose and methods used for soil analysis. LO5. Understand the soil factors which contribute to healthy plant growth.
	2. Vegetable Production	LO1. Describe the origin, economic significance and nutritional value of the main vegetable crops in Malta. LO2. Describe the morphological features and main organs of different vegetables. LO3. Understand the specific nutrients, water and climate requirements for different group of vegetables. LO4. Understand the basic plant pathology and treatment for different groups of vegetables. LO5. Explain the propagation, care and harvesting requirements for different group of vegetable.
	3. Breeding of Rabbits	LO1. Outline the history and phenotypic particularities of common rabbit breeds and hybrids. LO2. Explain adequate feed, water and housing conditions for rabbits at different growth stages. LO3. Apply adequate preventive and curative measures against diseases, parasites and disorders common in rabbits. LO4. Explain the reproductive system and the reproduction phases of rabbits. LO5. Describe the rabbit meat market conditions and the importance of humanely slaughtering rabbits for meat production.

SEC 36: Health and Social Care	1.	Human Development and Healthcare	LO1. Know the organisation of the human body and interrelationship of major body systems. LO2. Carry out routine measurements and observations of the human body. LO3. Know every day needs of individuals and how these change at different life stages. LO4. Understand factors that influence the health and wellbeing needs of individuals. LO5. Understand the importance and effects of a balanced and unbalanced diet and physical exercise on health.
	2.	Effective Communication and Safe Practices in Health and Social Care	LO1. Know the different forms of communication. LO2. Communicate effectively in a health and social care setting. LO3. Identify potential hazards in a Health and Social Care environment. LO4. Know the main principles of health and safety legislation when applied to health and social care. LO5. Carry out a basic care and risk assessment to ensure the health and safety of service users.
	3.	Equality, Dignity, Diversity and Rights	LO1. Describe the concept of diversity underpinning the health and social care sector. LO2. Explain the core values required in the health and social care sector. LO3. Describe the factors that influence equality and opportunity for individuals or groups in society. LO4. Be conversant with the role of charters, codes of practice, legislation and organisations in promoting diversity.

SEC 37: Engineering Technology	1.	Working Effectively and Safely in Engineering	LO1. Apply statutory regulations and organizational safety requirements. LO2. Prepare PPE and working environment according to the task checklist. LO3. Carry out engineering task according to safety standards.
	2.	Using Engineering Drawings, Tools and Materials	LO1. Interpret engineering drawings and information. LO2. Select engineering materials for a specified task. LO3. Use measuring and marking out tools appropriately for a given task. LO4. Use tools safely when undertaking basic engineering tasks.
	3.	Electronics Circuits Designs	LO1. Use safe working practices in the electronics laboratory and workshop. LO2. Describe the function of basic electronic components. LO3. Demonstrate prototyping skills of electronic circuits, typically used in vocational engineering. LO4. Construct circuits of moderate complexity.

SEC 38: Hospitality	1.	Introducing the Hospitality and Tourism Industry	LO1. Understand the tourism sector and its importance to the Maltese economy. LO2. Look into different types of hospitality businesses and understand the different employment opportunities available in the hospitality industry. LO3. Understand the importance to the organisation in providing excellent customer service in the hospitality and tourism industry through developing an understanding of customer's needs and expectations and the role of self-presentation, body language and acknowledging guests. LO4. Become aware of the importance of knowing your job and your environment. LO5. Become familiar with the different modes of communication and with business English communication used for effective communication in the hospitality industry.
	2.	Food and Preparation	LO1. Know the basic rules of food and personal hygiene and safety including proper attire during food preparation and safe use of kitchen equipment. LO2. Understand the basic principles of gastronomy including basic nutrition (the food groups, the nutrients, and diet related disorders). LO3. Be familiar with different food commodities and their possible uses. LO4. Understand basic food science including cooking methods and heat transfer and demonstrate different cooking techniques included in simple recipes. LO5. Be familiar with the pastry department, understanding basic food science of aeration, raising agent and yeast fermentation while demonstrating pastry making.
	3.	Hospitality Operations	LO1. Be familiar with the importance of good personal presentation, safety and different working skills involved in basic food and beverage service. LO2. Understand different types of menus and basic styles of service, crockery and linen. LO3. Know the proper way of taking orders keeping in mind different customer needs, special requirements, cutlery change and serving rules. LO4. Be conversant with different types of non- alcoholic beverages. LO5. Explain the different functions of the front office within a hotel environment. LO6. Understand the roles within the housekeeping department, areas of responsibility and the importance of safety and hygiene whilst cleaning in the hospitality industry.

SEC 39: Information Technology	1. Computer Systems and Networks	LO1. Describe the use of different types of computer systems. LO2. Perform basic installation and configuration of computer and operating systems. LO3. Understand the basic concepts of computer networking. LO4. Set up sharing permissions and appropriate security measures
	2. Databases and Programming	LO1. Design a database to fulfil specific requirements. LO2. Create simple tables for data sorting, classification and retrieval of data. LO3. Understand the basics of programming. LO4. Create simple programs using in-built functions.
	3. Multimedia Systems and Basic Website Design	LO1. Understand the concept of a multimedia system. LO2. Use audio editing software to process digital audio files for a multimedia project. LO3. Use video editing software to develop a multimedia project. LO4. Plan and design a website according to specific requirements.

Implementation

Teachers and Schools

For the scholastic year 2014/15, there were eighteen SEC vocational subject teachers in secondary schools. The schools that embarked on the project and the subjects offered are shown in the table below. Most of the educational institutions currently involved are boys' schools and two educational institutions are non-state schools. Since in each institution there are two teachers teaching the same vocational SEC subject, the system of internal verification is being employed as planned. For this year, all assessments, rather than a representative sample, were to be externally verified. This is considered a pilot project by MATSEC.

Table 5: Educational Institutions offering Vocational SEC Subjects, with number of teachers and subject/s offered

College / School	Number of vocational subject Teachers	Vocational Subject/s Offered
St Ignatius College Handaq BSS	2	Engineering Technology
Gozo College BSS	2	Engineering Technology
Stella Maris College (Boys' Church School)	2	Engineering Technology
St Benedict College Kirkop BSS	2	Information Technology
Maria Regina College Mosta BSS	4	Hospitality Agribusiness
St Margaret College Verdala BSS	2	Hospitality
San Anton Senior School (Coed Independent School)	2	Health and Social Care
Gozo College GSS	2	Health and Social Care

In the coming year, even with the announcement of new vocational SEC subjects, schools will be encouraged to offer not more than two such subjects while it will be suggested that candidates be able to choose one. Nevertheless, some schools decided to offer more than two SEC vocational subjects and allow students to opt for more than one such subjects.

Candidates and the Controlled Assessment

There are a total of 92 secondary school students who applied for one vocational SEC subject in the scholastic year 2014/15. Interested students were filtered, for example on the basis of motivation, through an interview. These students had to register with MATSEC in their first year of studying the vocational subjects. The registration for these subjects with MATSEC is as shown in the table below.

Table 6:   Number of Students for each Vocational SEC Subject in the Scholastic Year 2014/15

Subject	Number of Students
Agribusiness	7
Engineering Technology	36
Health and Social Care	9
Hospitality	25
Information Technology	15
Total	**92**

For the controlled assessment, MATSEC was responsible for the setup of 8 examination centres since the schools themselves are acting as such. Apart from the personnel required to deliver assessment papers and invigilators to supervise the candidates during examination, MATSEC also provided prompters, readers, scribes, communicators and practical assistants for candidates qualifying for examination access arrangements. Out of the 91 candidates for SEC vocational subjects, 12 (13.0%) were entitled for such arrangements, requiring a total of 6 personnel for access arrangements.

These numbers can be seen to contrast with those of other SEC subjects. In May 2014, out of 6599 applicants for SEC subjects, 621 (9.4%) were entitled for examination access arrangements. 415 personnel were used to provide such arrangements. The number of personnel used per candidate, varies across subjects as shown in the figure below.
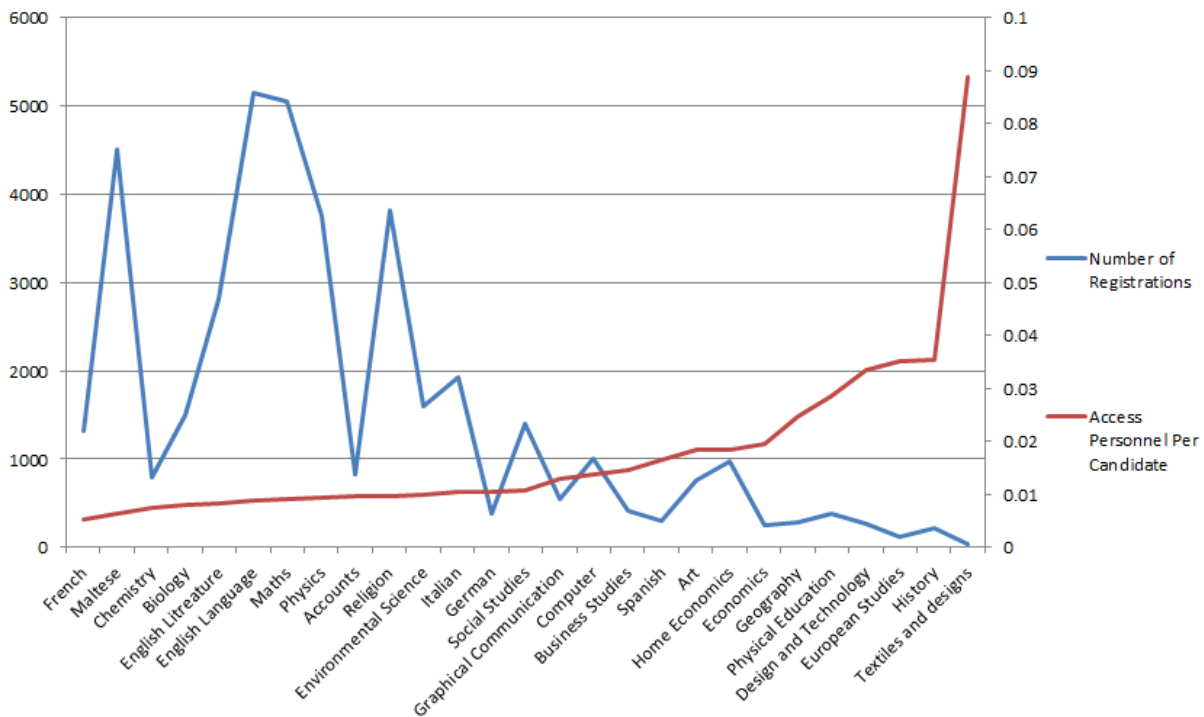
Figure i: Access personnel per candidate across subjects with varying number of registrations for the 2014 SEC examinations

It becomes evident from the figure that subjects with a small number of registrations require a higher number of personnel per candidate. This is because it is harder for prompters, invigilators for extra time and other personnel to be shared amongst candidates. When this year's SEC vocational subjects (shown in capital letters) are compared with 2014 examinations for other SEC subjects, the following pattern emerges. A larger version of this figure is provided in Appendix C.
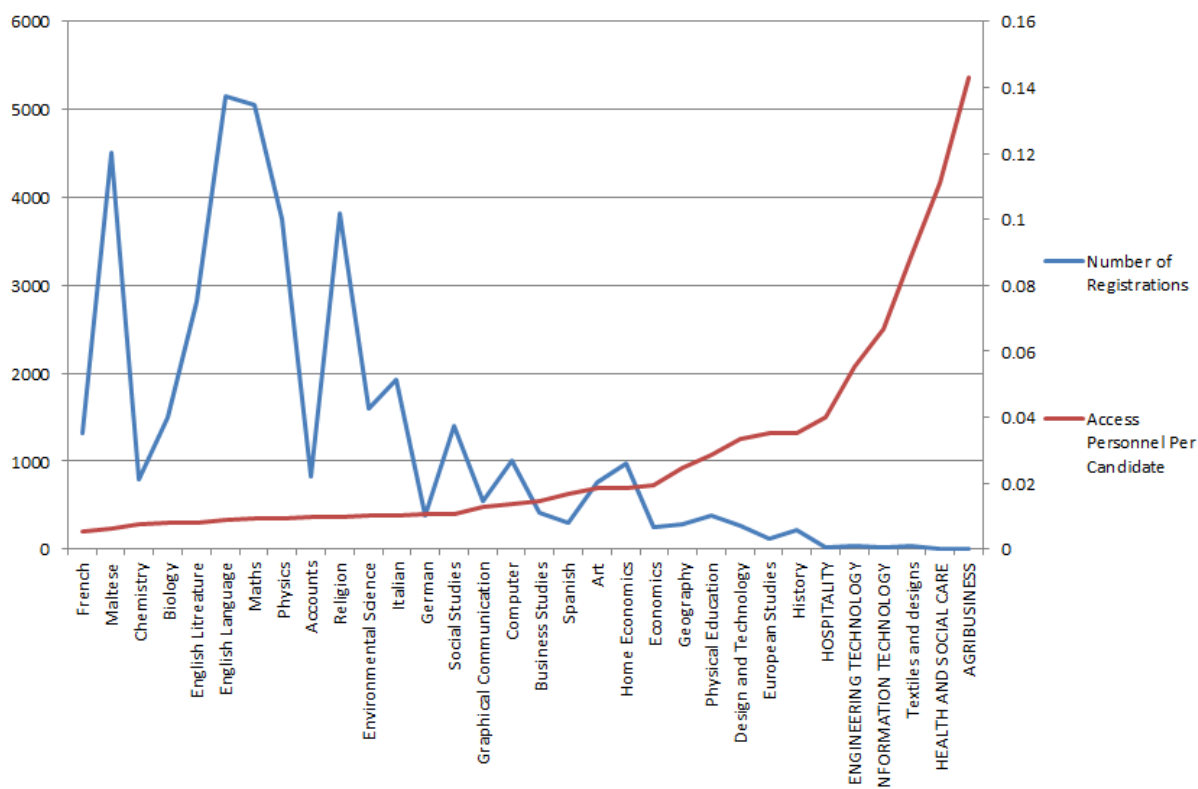
Figure ii: Access personnel per candidate across subjects with varying number of registrations for the 2014 SEC examinations and 2015 SEC VOCATIONAL subjects

This suggests that the physical resources and personnel – external verifiers, support staff, examination centres, delivery of examination papers, and so on – required for this project should not be misjudged. As more schools start to offer SEC vocational subjects, issues concerning practices such as the delivery of examination papers, management of examination sessions, and management of the synoptic assessment are expected to become more demanding. **As number of candidates for SEC vocational subjects increases, the physical requirements needed for the project not to fall flat on its face should not be underestimated.**

Other Points

MATSEC has been investing considerable time and resources in this project, trying to ensure its success. Apart from a myriad of meetings with the DQSE (Directorate for Quality and Standards in Education), MATSEC has also held meetings with affected individuals. MATSEC has also appointed a PSAO (Principal Subject Area Officer), Mr. Malcolm Micallef, specifically responsible for SEC vocational subjects. He has been working on the project since November 2014.

A proposed schedule for the academic year 2014-15 is shown in Appendix D as presented in the meeting with School/College Headmasters in February 2015. External verification for the scholastic year 2014-15 took place in the dates shown in the table below.

Table 7: Dates for the first external verification of the scholastic year 2014/15

College / School	Vocational Subject/s Offered	Date for External Verification
St Ignatius College Handaq BSS	Engineering Technology	2nd March 2015
Gozo College BSS	Engineering Technology	6th March 2015
Stella Maris College (Boys' Church School)	Engineering Technology	4th March 2014
St Benedict College Kirkop BSS	Information Technology	5th March 2015
St Margaret College Verdala BSS	Hospitality	4th March 2015
Maria Regina College Mosta BSS	Hospitality	5th March 2015
Maria Regina College Mosta BSS	Agribusiness	18th March 2015
San Anton Senior School (Coed Independent School)	Health and Social Care	10th March 2015
Gozo College GSS	Health and Social Care	9th March 2015

Students who exceed the assignment deadline for a valid reason can apply for an extension while those who do so for no valid reason would have to sit for the synoptic assessment. There was a case where a candidate submitted only part of an assessment since this was divided in tasks collected and marked separately. In this case, the assessment is still considered as attempted; the mark for the submitted part is taken; and the candidate was not be eligible to sit for the synoptic assessment unless s/he fails the whole unit.

The synoptic assessment for SEC Hospitality was carried out on the 7th July 2015 at the MATSEC Support Unit. The chosen period, overlapping with the May examination session – a very busy period for the MATSEC Support Unit – resulted in logistical challenges as there was little time for the setting, checking and vetting of the examination papers. Although these were managed this year, problems might arise when the number of SEC vocational subjects increases. Besides, there was little time for candidates who failed their controlled assessment to be informed and prepare themselves for the synoptic assessment. **The synoptic assessment session/s could be relocated to later on during the year, roughly coinciding with the September, rather than the May, examination session.**

One candidate was absent for the controlled assessment and the reason for his/her absence (death in the family) was considered to be a justified one. Thus, the synoptic assessment was not considered as a resit and the candidate could obtain a mark exceeding 60%. As indicated earlier, this candidate had to satisfy some of the learning criteria more than once. It is questioned whether this practice is fair or **whether the synoptic assessment mark should replace the unit's global mark**, as is practice for candidates sitting for the synoptic assessment after having failed the unit.

Feedback

Methodological Notes

The aim of the following section is to compile feedback about this pilot project. The main question asked is 'What are the advantages and disadvantages in the current design and practice of SEC vocational subjects, what can be improved, and what are the implications of this project on various parts of the Maltese educational system?' This study is important to ensure that students are attended to in the best possible way, while respecting the professionalism of educators and the existing standards of SEC qualifications.

Given the size of the current pilot project, data can be both wide and deep. As such, this report does not limit itself to any group of participants, and the following data collection exercises were carried out:

1. The observation of external verification sessions for all SEC vocational subjects which included
   a. Relatively unstructured focus groups with teacher/s, internal verifier/s, external verifier, and head of school;
   b. Relatively unstructured focus groups with candidates in six schools;
2. All external verification reports;
3. Separate meetings with all teachers, stratified by subject, held at the MATSEC Support Unit;
4. A 29 Likert-scale items questionnaire, based on the data obtained from 1 and 2 above, distributed to all teachers, internal verifiers, external verifiers and heads of schools; and
5. Phone interviews with two teachers for further clarification about their responses in the questionnaire.

The MCAST Deputy Principal (Curriculum, Quality Assurance and Professional Development), the Adviser, Vocational Education Development Programme at the Ministry of Education and Employment, and various members of the MATSEC Support Unit were interviewed to provide information useful for the compilation of this report.

The questionnaire was distributed to 31 individuals of whom 24 responded. The response rate, especially that of teachers, is higher than that in other surveys conducted with educators. This might indicate their dedication to the project.

Table 8: Questionnaire Respondents

	Number of Respondents	Total Number Involved	Percentage of Respondents
Teachers and/or Internal Verifiers	15	18	83%
SMT	5	8	63%
External Verifier	4	5	80%
Total	24	31	77%

Although much effort has been placed, this report, like any other report, is not final. As the writer has himself acted as the instrument of data collection (Fairbrother, 2007), one cannot possibly claim complete objectivity (Onwuegbuzie & Leech, 2005; Johnson & Onwuegbuzie, 2004) and it is

acknowledged that what one notes and measures is, to an extent, theory-laden (Chen, Chang, Lieu, Kao, Huang, & Lin, 2013; Abd-El-Khalick, Lederman, Bell, & Schwartz, 2001; McComas, Almazroa, & Clough, 1998). As such, more observation by different individuals and/or organisations is always recommended. In addition, as neutrality is a myth (Thornberg, 2012; Dickson, 1988) and all theory value-laden (Thomas, 2007; Griffiths, 1998), this report presents the information collected but refrains, as much as possible, from making suggestions except those mentioned by participants themselves. Questions for the informal focus groups and items for the questionnaire were pulled out from the data itself in an effort to keep the research as 'grounded' (Thornberg, 2012; Milliken, 2010) as possible.

The data collection and analysis and compiling of this report has been done by Mr. Gilbert John Zahra (Principal Assessment Research and Development Officer). All this was done in constant liaison with other members of the MATSEC Support Unit, mainly Mr. Malcolm Micallef (PSAO Vocational Subjects), Mr. Dario Pirotta (Executive Director) and Prof. Frank Ventura (Chairperson of the MATSEC Examinations Board).

External Verification

The external verification sessions observed proceeded as expected with minor deviations from MATSEC's instructions. The observed external verifiers devoted a whole school day to (i) liaise with the teachers, internal verifiers and Quality Assurance Officers, (ii) review all candidates' work and (iii) interview the candidates. The reports produced by external verifiers seem to be of a good level, reporting both good and bad practice and suggesting areas for potential improvement. However, not all external verifiers have met the teachers, internal verifiers and SMT members responsible for SEC vocational subjects in the visited school. Neither have all external verifiers interviewed candidates. All questionnaire respondents, except for three teachers, deemed external verification to be professional and helpful. One teacher criticized the external verifier's attitude and lack of constructive feedback. These teachers could be originating from the same subject or not.

Although it is emphasized that the main role of the external verifier is to support their work and assure standards rather than to inspect and report on deficiencies, teachers and internal verifiers still seemed nervous about the practice. This is so notwithstanding the mostly informal attitude adopted by external verifiers. Thus, negative comments posed by external verifiers were, sometimes, taken on a quasi-personal level. In fact, in one particular school, a member of the SMT was very dissatisfied with the report since this indicated areas of improvement.

Some external verifiers believe there might be insufficient contact between teachers and internal verifiers in schools and the external verifiers or people at MATSEC. Although not specifically in his remit, an external verifier asked for more contact with teachers and internal verifiers prior to the external verification. The teacher and internal verifier present deemed this to be of help and suggested that the identity of the external verifier be known beforehand. Some teachers suggested that the first external verification could take place prior to March so that any shortcomings can be addressed at their earliest. Survey results suggest that most educators agree with this statement.
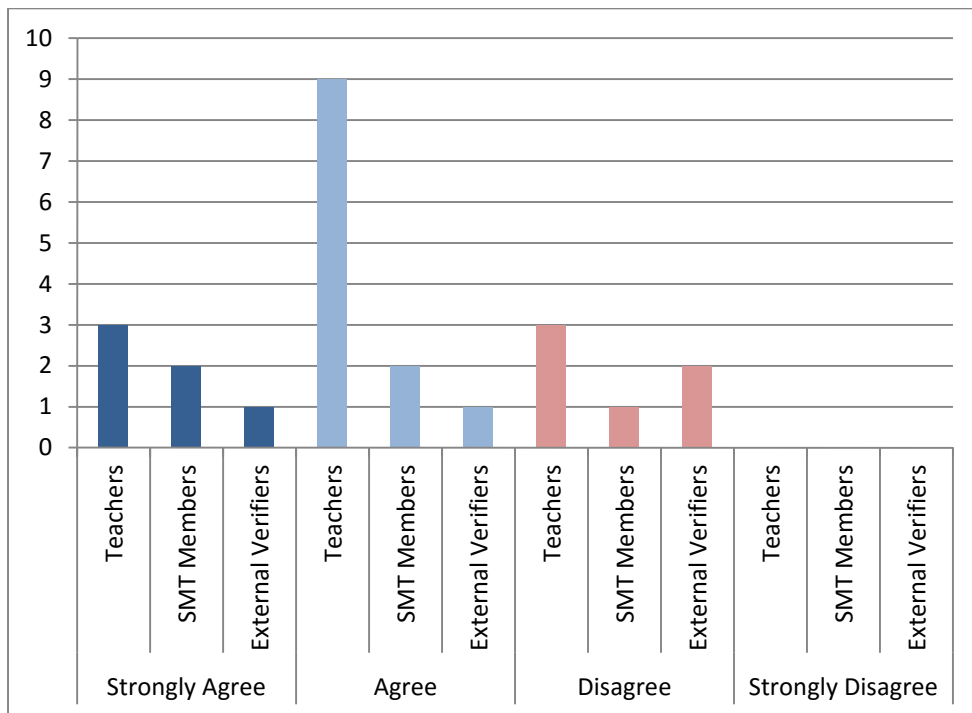
Figure iv: Response to item 'The first external verification visit should take place prior to March'

However, all the eight teachers met during the second external verification did not agree with this measure arguing that, if moved to the end January, external verifiers will have little work to assess and provide feedback on. Teachers also held that visits might clash with school examinations. They also held that, where possible, it should be Heads of Department who carry out these mentoring visits. **This conflicting data suggests that the survey questions might have been misunderstood or not given enough thought.** Teachers, during the second external verification process, argued that

the controlled assessment should be scheduled later by a week or two to allow for more teaching time. This would also avoid having a post-exam period of a week or two after the assessment which, since all the material for the unit would have been covered, teachers felt was not a good use of student's time.

Some external verification reports have emphasised that the MATSEC Support Unit has been of little support, mentioning the lack of indications on how to deal with candidates' requiring access arrangements as an example. In fact, an agreement on access arrangements that accommodates SEC vocational students was only reached on Friday 20th March as these changes would affect all candidates and personnel working in related fields. However, one should point out that this was the responsibility of the ACCESS-Disability Support Unit at the University of Malta. Others mentioned the lack of policies provided by the MATSEC Support Unit and one SMT member argued that external verification was not a 'hand-holding exercise' since a report documenting weaknesses along with strengths was presented at the end. Although it was explained that the report is provided to the school for internal use, this individual believes that shortcomings should be pointed out informally leaving only good points to be noted in the report.

Other teachers, however, have contacted the MATSEC Support Unit and established an apparent good relationship with Mr Malcolm Micallef (PSAO Vocational Subjects), and praised the aid they received. As a result, it seems that those who criticized the MATSEC Support Unit as being of little help did not, for some reason or another, seek its help in the first place. In the questionnaire, no teacher or verifier accused the MATSEC Support Unit of being inaccessible. **The MATSEC Support Unit is successfully promoting itself as an accessible body although some more work could be done.**
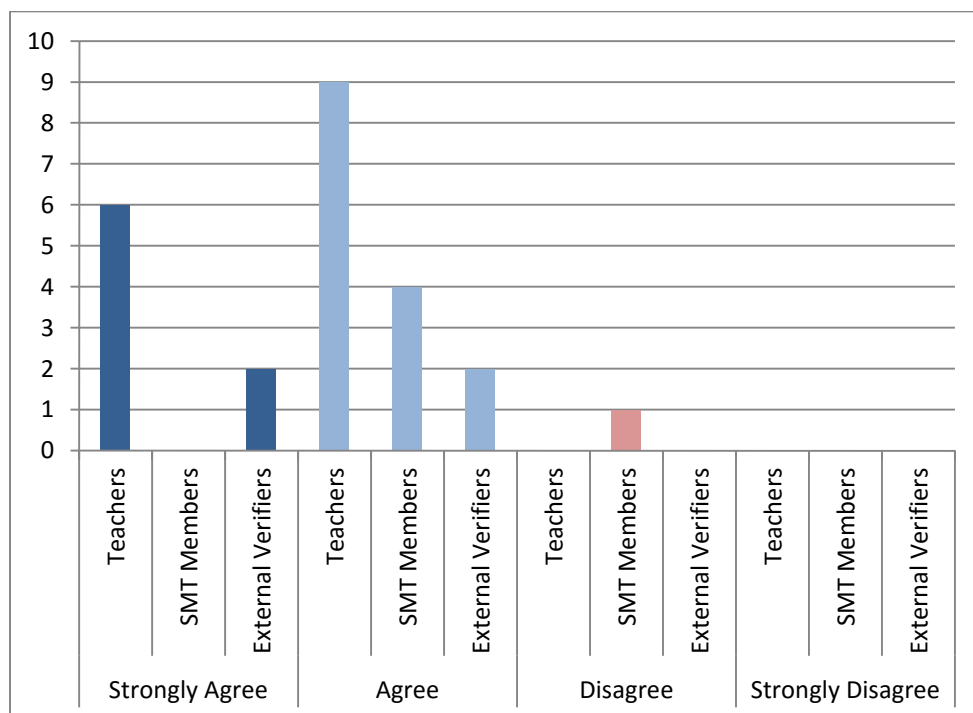

Figure v: Response to item 'I feel comfortable contacting MATSEC to discuss any issues'

In one instance, candidates' marks had to be reduced as the external verifier noted cases of plagiarism; two particular candidates copied chunks of text from the internet. In these cases, the marks for the copied parts – which were never the whole task – were reduced while the candidates had to be reminded that this practice is unacceptable. In other instances, there were computational or data inputting errors.

An external verifier noted that **the resources, especially human, required for such project in the future should not be taken lightly**. He argued that it will be nearly impossible for external verifiers, who are not full-time members of the MATSEC Support Unit, to carry out external verification in more than three schools in a given week or two.

Marking Schemes

Marking schemes were in place and of a generally good standard. However, **there might be significant confusion on what a good marking scheme entails**. Some marking schemes provided model answers, but did not provide a description of poor performance and neither did they provide the principle for determining between poor and good performance. According to Ahmed and Pollitt (2011), such marking schemes can be classified as Level 1. Additionally, some of the marking schemes did not specify how marks will be distributed. Met teachers and internal verifiers were directed to do this and seemed eager to improve their current practice.

The General Taxonomy

Level 3   A **principle** for discriminating better from
         poorer performances

Level 2   A description of **good and poor**
         performance (complete or partial)

Level 1   A description of **good** performance
         (complete or partial)

Level 0   **No help** in assigning marks

Figure vi: The General Taxonomy of Marking Schemes (Ahmed & Pollitt, 2011, p.266)

The questionnaire responses confirm that teachers are generally comfortable with designing marking schemes. However, some, as suggested above, do have difficulties. It is worth noting that even half of the participating external verifiers confess to needing such help.
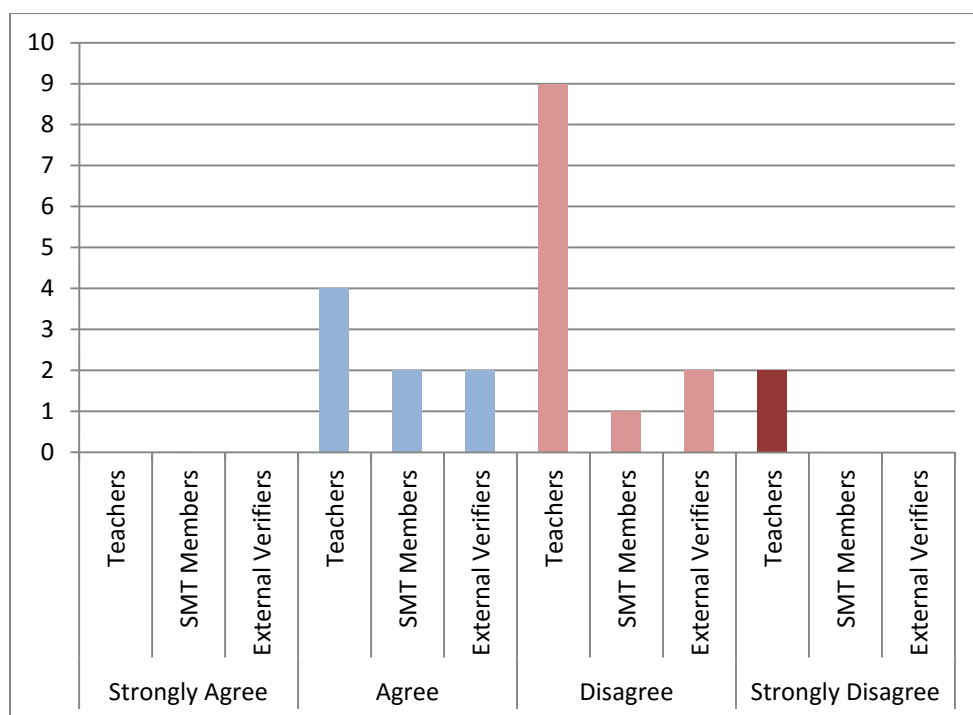
Figure vii: Responses to item 'I need help in designing marking schemes'

In one particular instance, a knowledge component asked for nine examples for a given situation related to the subject. Nine examples were asked for because, during training offered by Edexcel, teachers were instructed to assess 50% + 1 of stated examples and, as the syllabus listed sixteen examples, the teacher assessed nine of them (50% * 16 + 1 = 9). As the knowledge component has a total of four marks, each example was awarded 0.4 marks, which was rounded from 4/9. An anomaly was raised as the total mark was now 3.6 (0.4 * 9 = 3.6). Such errors must be avoided. It must be ensured that there is an even number of subcomponents for each knowledge, comprehension and application component. Otherwise, one must emphasize that not all syllabus examples are to be assessed. **The 50% + 1 rule should state that this is the *minimum* number of assessed examples**.

Resubmission

In the BTEC system, if a candidate failed one pass criteria, the candidate would fail the whole unit. BTEC, however, allowed candidates to resubmit their work. BTEC left it up to schools/colleges to devise a policy on how many times they should allow resubmissions. Since SEC vocational subjects award a grade depending on a candidate's score in all assessment criteria, such practice is forbidden. The MATSEC Examinations Board suggests that teachers provide informal feedback to aid candidates who encounter difficulties, however no versions of the assessment should be accepted or help given after the stipulated assessment deadline. Some teachers also emphasised that no help can be given on dichotomous questions since if a candidate knows that an answer is in/correct, the answer is known to all the class.

A few interviewees complained about the no resubmission policy, claiming that the BTEC system allowed the assessment to act more formatively. Others noted, however, that SEC's system is fair given that the work is graded rather than awarded a pass or fail. Others reminded that candidates can seek informal help from teachers beforehand and improve their own work should they wish to

do so. However, the other counterpart noted that this cannot always be expected from teenagers and suggested multiple deadlines for assessments divided into shorter tasks.

The situation observed in schools is rather different than that articulated by the MATSEC Support Unit. The practice of providing informal, verbal feedback was not present across all vocational subjects. In most schools, teachers allow candidates to submit their work before the stipulated date and have it checked. Feedback varies from correction of individual items to a general comment about the piece of work. Some teachers provide the current mark (that can be improved) although most teachers do not do so. Teachers in another school opted to provide students with a false deadline, one week before the official one as stipulated on the assessment front sheet. During this week, educators have the time to chase students who have difficulties in respecting deadlines and give suggestions to others to improve their work.

A teacher from another school recounted how a student took one particular task (which was a part of an assessment) lightly and decided to submit the task on the last day and not seek help from his/her teacher beforehand. As a result, the candidate did not have the opportunity to correct his/her own work and the mark obtained was relatively low. When the candidate spoke to the teacher, this was explained and the candidate expressed regret for taking the task lightly, leaving it for the last day before submission. This, the teacher continued, apparently served as a learning experience for the candidate who decided to work on subsequent tasks in due time and seek advice beforehand. Thus, this teacher and others argued, **the system adopted by the MATSEC Examinations Board is still a formative one**.

SEC Vocational subjects ask for three assessments and a deadline for each one. Most teachers have decided to subdivide assessments in a number of shorter tasks to be completed along the year. Since the practice of tasks is not an official MATSEC Examinations Board stipulation, task deadlines are not communicated to the MATSEC Support Unit. Teachers adopting such system have sometimes faced candidates who chose not to give the task by the stipulated date and, instead, hand in all the tasks forming the assessment before the official assessment deadline. Teachers noted that candidates who opted for this approach did worse than others, incompletely delivering the assignment or failing to satisfy numerous grading criteria. Another teacher and internal verifier for a particular subject held that such practice (which is an official MATSEC Examinations Board one) is inconvenient to teachers who have to keep on marking the same task at different instances. Thus, all questionnaire respondents except for two teachers and two external verifiers suggested that task deadlines, where in place, should be official. **SEC vocational subjects should have a policy that regulates the optional practice of assessment tasks.**

Interviewed candidates also expressed their preference for assessments that are divided in tasks as this helps them to better distribute their work and gauge their progress throughout the assignment. Some interviewed teachers emphasised that the subdivision of assignments into tasks ensures that the MATSEC Examination Board's system for vocational subjects is better than the system that was previously in place: while candidates' formation is aided, the system also allows for their fair grading. Some teachers emphasized that tasks should not be given back to students once corrected since resubmission is an unfair practice when candidates are norm-referenced and awarded grades.
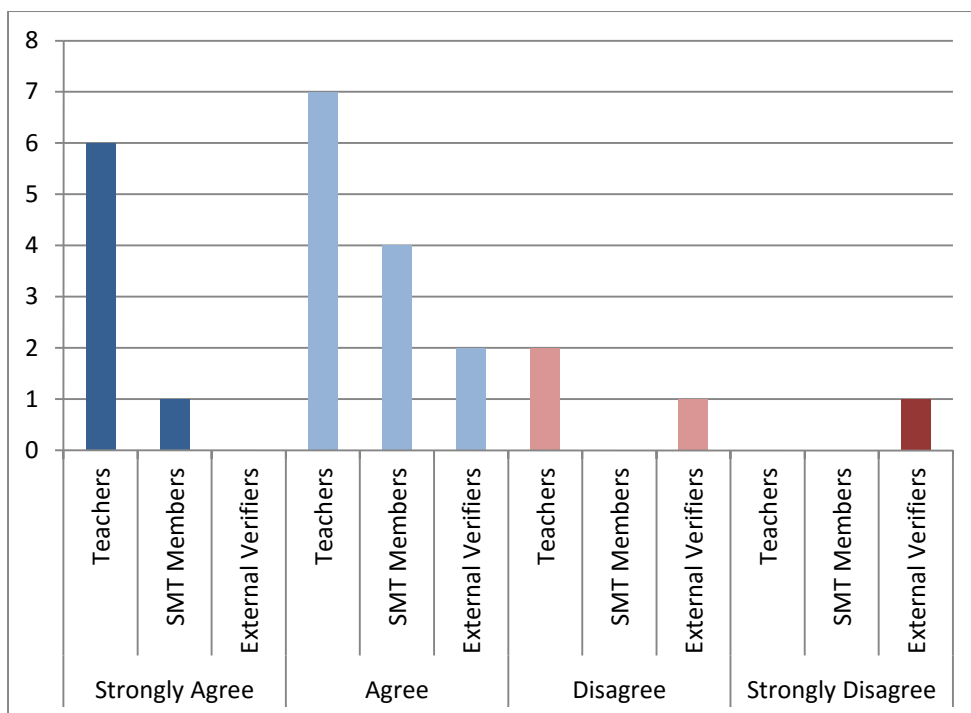
Figure viii: Responses to item 'When an assessment is divided into tasks, teachers should be able to give task deadlines after which candidates' work will not be collected'

Given the above discussion, it is not surprising that most teachers believe that they should be able to set task deadlines that ought to be respected by candidates. Two teachers who disagreed with this practice held that it might be difficult for teachers to set and adhere to task deadlines since there are numerous unforeseen events in schools. **They suggested that writing official task deadlines on assignment briefs could be too binding for the date setter him/herself and that these should be communicated orally**.

Teachers' Attitudes and Workloads

Teachers involved in this pilot project appear very competent in their work, looking for novel teaching resources and activities and adopting an appropriate range of assessment tools. All questionnaire respondents stated that they care about this project and its success. This is something that all external verifiers noted: **Teachers and internal verifiers appear to be working closely together and the work produced by themselves and the candidates is, generally, of a very high standard.** The dedication shown by these individuals ensures that a success is made of this pilot project. As one external verifier wrote:

> *During this initial visit I was particularly impressed with the meticulous attention to detail shown by the teachers involved in respect to the delivery, assessment and internal verification of the unit. Their inquisitive nature about best practices, dedication, and willingness to learn and improve upon their current status is admirable.*
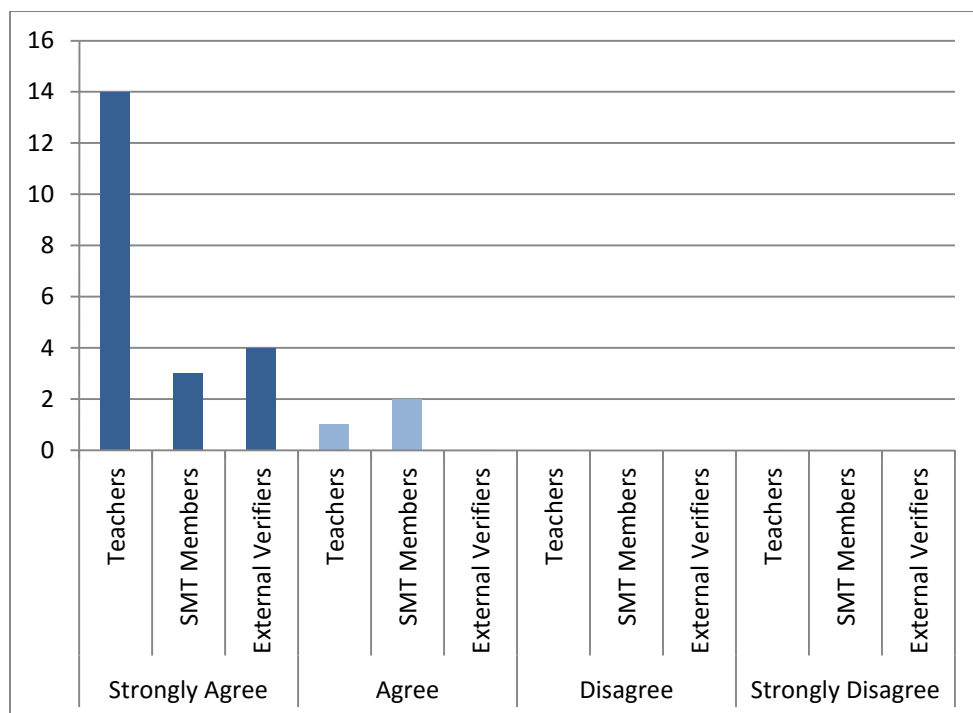
Figure ix: Responses to item 'I care about this pilot project and want it to be a success'

Teachers' high levels of commitment were also pointed out by the Adviser at the Ministry of Education and Employment (personal communication, 26 May, 2015) who attributed this to teachers' greater power and autonomy in SEC vocational subjects. Teachers, he continued, "learn to write the assignment briefs, learn to correlate the assessment criteria to the learning outcomes, learn to work with other colleagues to carry out the internal verification of each other's work" and their assessment is valued as qualification grades. Caruana also hinted that vocational teachers adopt child-centred pedagogies as opposed to "the normal transmission mode of learning". While this last claim cannot be substantiated through this report since lessons in vocational and non-vocational SEC subjects were not observed and compared, interviewed **teachers did sustain that they feel empowered through the current system as they are allowed more freedom in interpreting the syllabus and officially assessing candidates**. Teachers held that, through this process, teaching becomes more adopted to learners' individual needs and, hence, meaningful learning becomes more probable.

Although, most questionnaire respondents held, teaching SEC vocational subjects does involve more work than that involved in traditional subjects, this is, teachers in interviews claimed, worth the effort as students seem to be more interested and engaged with the content and, as a result, more likely to achieve a certification that truly reflects their strengths. One of the teachers, Dirk Muscat (2015), expressed such views in a short article showing that, as educators themselves commented, involved personnel feel they own this pilot project.
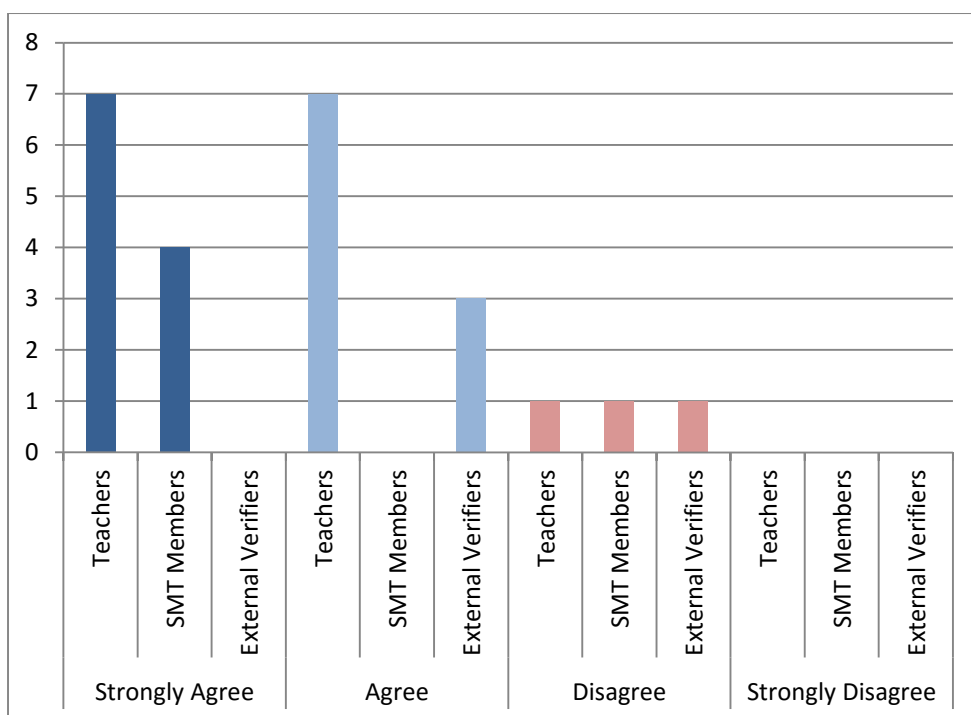
Figure x: Responses to item 'SEC vocational subjects involve more work than traditional SEC subjects'

One Head of School pointed out that the additional work done by teachers teaching vocational SEC subjects needs to be recognized. The Head of School suggested that teachers be remunerated for correcting the controlled assessment since this task is quasi-identical to that done by individuals who correct SEC examination papers against remuneration (markers).

The work done by internal verifiers, many reminded, needs to be recognised as part of the teachers' load. In some state schools, wherever possible, the teaching loads of SEC vocational subject teachers were reduced to 16 lessons a week from 24. Four lessons were decreased for preparation and verification and four lessons for training organised for future SEC vocational subject teachers. In a particular school, teachers and internal verifiers claimed that they were also relieved from mid-yearly exam supervision to account for the additional work involved in this first year. However, this is not universal practice and in another school teachers commented – but did not complain – about their full teaching load. The teachers' collective agreement, some argued, should reflect and regulate these novel roles. However, although believing that all educators should be duly respected, collective agreements are not in the remit of the MATSEC Support Unit or the MATSEC Examinations Board.

Some teachers also argued that sixteen students in a class can, at times, be too much: Candidates deserve individual attention. A school confessed to having both teacher and internal verifier in the same class to provide an adequate education. Agreements about student-teacher ratios and their working load are, however, not the responsibility of the MATSEC Support Unit or the MATSEC Examinations Board.

Resources

While some schools have invested in the required resources and personnel (e.g. technicians) to ensure sound vocational training that is applied and hands-on, other schools do not yet seem adequately well-equipped to ensure this. Questionnaire responses confirm this disparity amongst schools. **An external verifier expressed concerns that SEC vocational subjects in secondary schools could be offering less hands-on experiences than their equivalents at MCAST**. Although resources differ from one educational institution to another, observed teachers, being committed to the project, liaise with teachers and personnel from other subject areas for sharing of materials. Additionally, teachers do not refrain from organising site visits and interviews with people possessing local, practical knowledge. Here, teachers' interest and ingeniousness in using school- and community-based resources seems to be having a positive effect. However, support with adequate resources, although not the responsibility of the MATSEC Support Unit, is recommended.
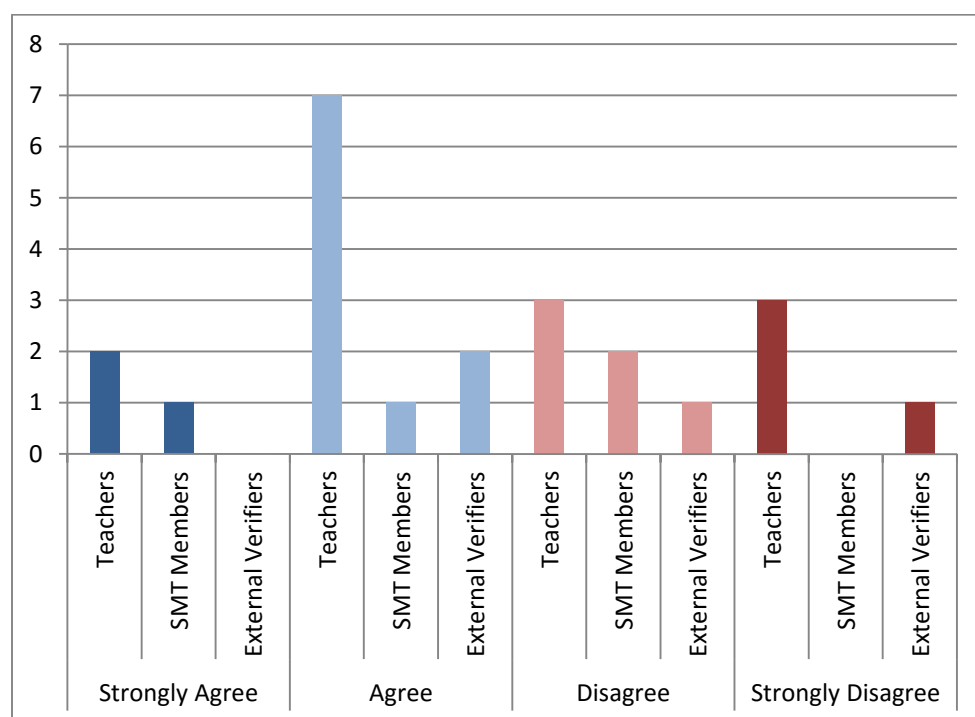
Figure xi: Responses to item 'There are sufficient resources for me to teach vocational subjects through a hands-on approach'

Both educators and students expressed concerns about the lack of textbooks and workbooks for SEC vocational subjects. Some teachers are using those issued for BTEC subjects to provide material to candidates. Other teachers use other textbooks but note that the content and level of foreign textbooks is different than that expected in these courses, with most addressed at higher levels of studies (beyond secondary education). Although the lack of textbooks avoids textbook centred pedagogies, textbooks and workbooks remain important teaching tools and, both students and educators commended, would be of help for the teaching and learning process. **Teachers and students would like to see the production of local textbooks that accompany SEC vocational subjects.** The MATSEC Support Unit does not publish textbooks for individual subjects.
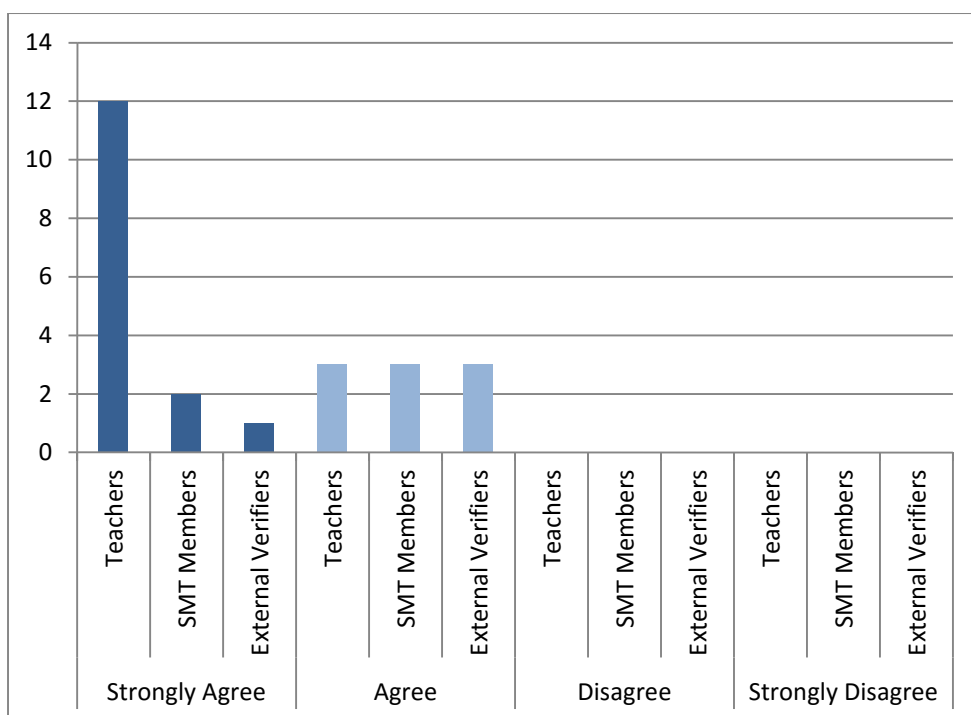
Figure xii: Responses to item 'I would like there to be local textbooks and workbooks for SEC vocational subjects'

Quality Assurance Officers and School Documentation

While teachers and external verifiers seemed very well-informed about these subjects, the general practice of Heads of School or Assistant Heads of School acting as Quality Assurance Officers, is, at times, improvised or not in place at all. Some external verifiers observed very good practice, with good support provided to teachers and internal verifiers and one Quality Assurance Officer even visiting classrooms to observe the teaching and learning experience in vocational subjects. However, others commented that **although work is being done, it is not up to the expected level**. Questionnaire responses confirm these thoughts: While most external verifiers perceive good work, nine of the fifteen teacher respondents are not happy with the work done by SMT members when it comes to SEC vocational subjects.
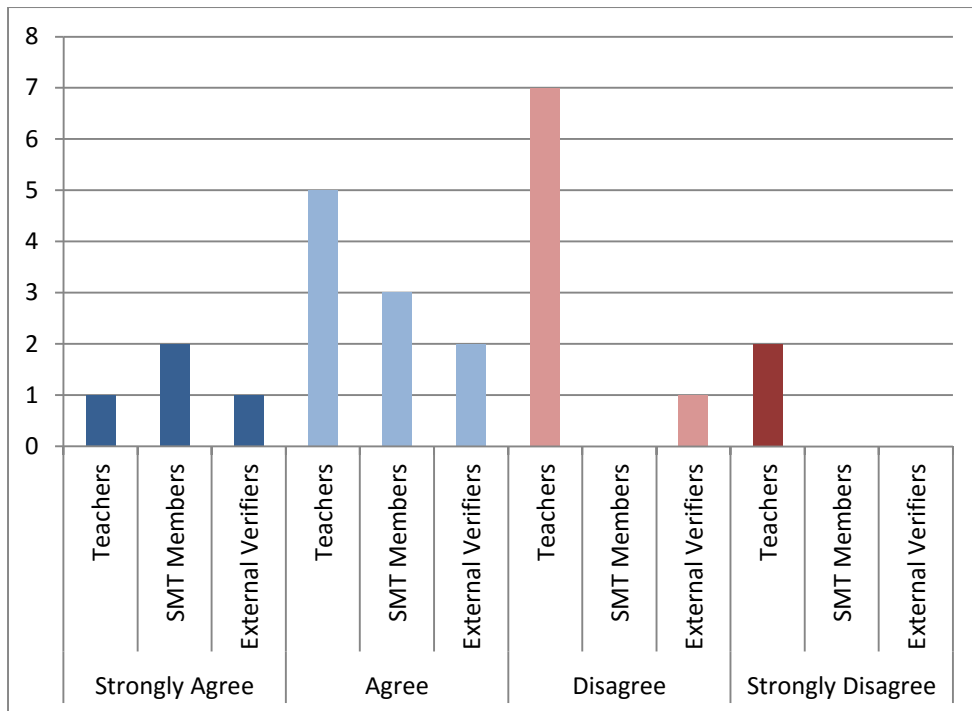
Figure xiii: Responses to item 'SMT members provide adequate support to SEC vocational subject teachers and internal verifiers'

Sometimes, the Quality Assurance Officers themselves articulated this, although it was not manifested in questionnaire replies. Reasons given included that they are not well-informed of what is expected from them as Quality Assurance Officers and that they are already busy with pre-existing work. A few schools have taken this task too lightly with educators in one school informing us that the Quality Assurance Officer was appointed during the week when external verification was scheduled, while a Quality Assurance Officer was unidentified in another school. **External verifiers suggested scheduled meetings between teachers, internal verifiers and SMT members on, at least, a monthly basis**. One should note that the MATSEC Support Unit held a meeting with current and future Heads of Schools where a suggested timeframe (Appendix D) was presented, a practice that is agreed upon by most questionnaire respondents.

Figure xiv: Responses to item 'Meetings between teachers, internal verifiers and an SMT member should be planned at the beginning of the scholastic year'

Masterfiles were, nevertheless, mostly up-to-date. However, **some external verifiers did encounter substandard working files, at times blaming the MATSEC Support Unit for the lack of support and clear instructions provided to schools.** Some suggested that the list of sections forming the Masterfile (as in Appendix A) be made more accessible, such as, for example, being listed in the syllabi 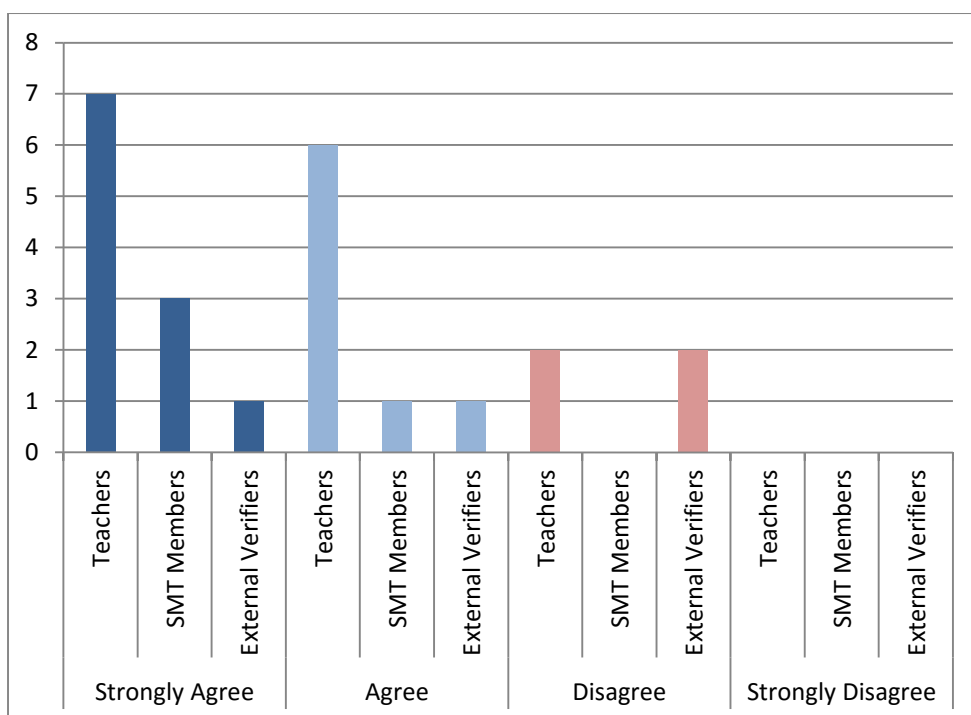themselves. The MATSEC Support Unit, it was suggested, should provide models of policy and procedures requirements. It should be noted that although some procedures, like Health and Safety ones, are school-based and already prepared, these were not included in a good number of MasterFiles. This malpractice leaves a number of questions since all schools were previously involved in the delivery of BTEC subjects which required a Masterfile very similar to that requested for SEC vocational subjects.

In some instances, the Student Handbook and Staff Handbook were not in place. Where they were present, these were designed by the teachers and internal verifiers. Teachers and verifiers commented that, apart from it being unfair to expect them to compile such documents, this system stimulates unreliable and unfair practices between different schools. Observed schools have different checks and measures, dealing with, for instance, cases of plagiarism differently. As a result, many teachers, verifiers and head of schools suggested that **the Student Handbook and Teacher Handbook need to be centrally set and that this should be done as soon as possible** to ensure commonalities between schools that are preparing and assessing candidates for the same subjects at the same level.
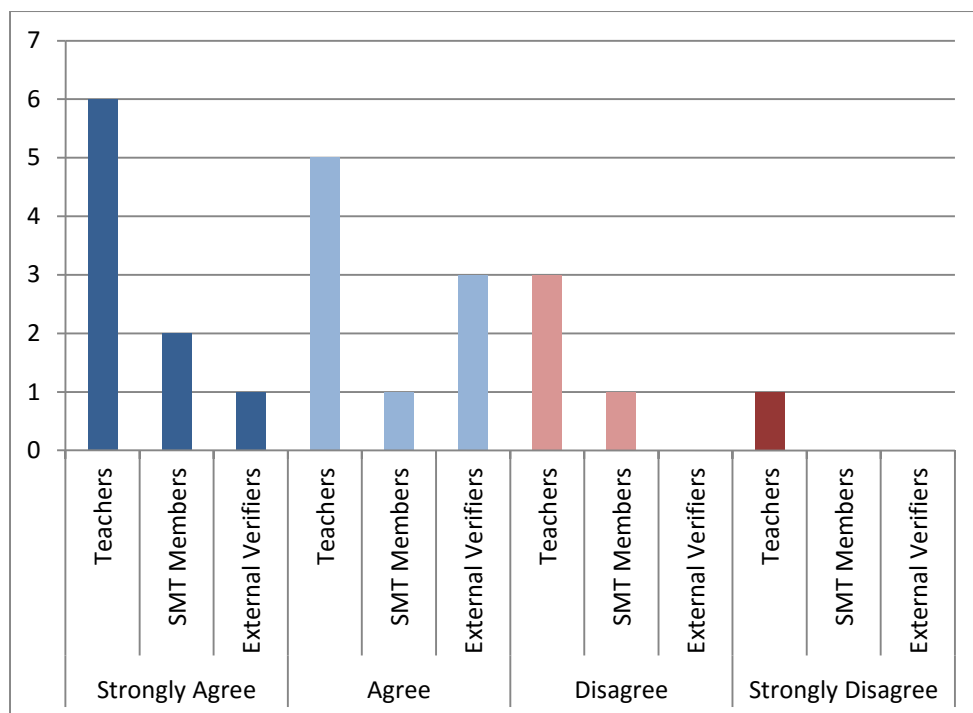
Figure xv: Responses to item 'Student and Staff Handbooks need to be centrally set'

A few questionnaire respondents, however, disagreed with this. Reasons for this were sought and three teachers contacted me to provide explanations. They held that such documents, though centrally set, should not be too prescriptive by setting things such as assignment titles and how to deal with cases where students misbehave. Inference in these matters was never the intention of the MATSEC Support Unit.

Some suggested that these handbooks be incorporated in the subject syllabi themselves. Given the absence of centrally set policies, some schools are using the ones previously in place for BTEC vocational subjects, at times without making the necessary changes to make these compliant with SEC rules and regulations. Nevertheless, one should note that the meeting with Heads of School was held on the 13th February 2015 and, thus, they might have lacked the time to prepare and/or amend these documents.

Syllabus Content

The level of work prepared by educators on interpreting the syllabi did, at least in one instance, exceed the level set by the MATSEC Examinations Board, meaning that content-levels surpassed those expected for a MQF Level 3 certification. This was because most syllabi did not clearly specify unit content but only included a description of the learning outcome. Some candidates have been over-taught and accordingly over-assessed. An external verifier argued that teachers need to be looking more closely at the Assessment Criteria rather than the syllabus itself. At times, teachers held, the syllabus is unclear in stating the level of detail required. For example, in Agribusiness, LO1 provides the following unit content:

- "Classification: classification by taxonomy (characteristics of the major divisions and subphyla), classification by use (fruit, vegetables, herbs, nuts, ornamentals, etc.)
- Plant nomenclature
- Morphology: structures and functions of root, stem, leaf, fruit, seed, plant cells and tissues (parenchyma, collenchyma, sclerenchyma)
- Growth: primary and secondary growth, germination, flowering" (p.11)

The Assessment Criteria for this LO are as follows:

- K-1: Relate different organs with plant root and shoot systems.
- K-2: Describe different plant body tissues and plant cell components.
- C-1: Distinguish between the leaf and flower morphologies to compare different plant species.

Thus, teachers who trained students in classification by taxonomy have taught students content and skills that will not be assessed. The syllabus, teachers argued, needs to be clearer. One should note that, as some teachers and internal verifiers pointed out, teachers stem from an excessively exam-oriented system where syllabus interpretation is not taken lightly. Other teachers looked at Pearson BTEC syllabi to try and fill the perceived gaps in SEC vocational syllabi. This problem was not present throughout all SEC vocational subjects, as questionnaire responses indicate.
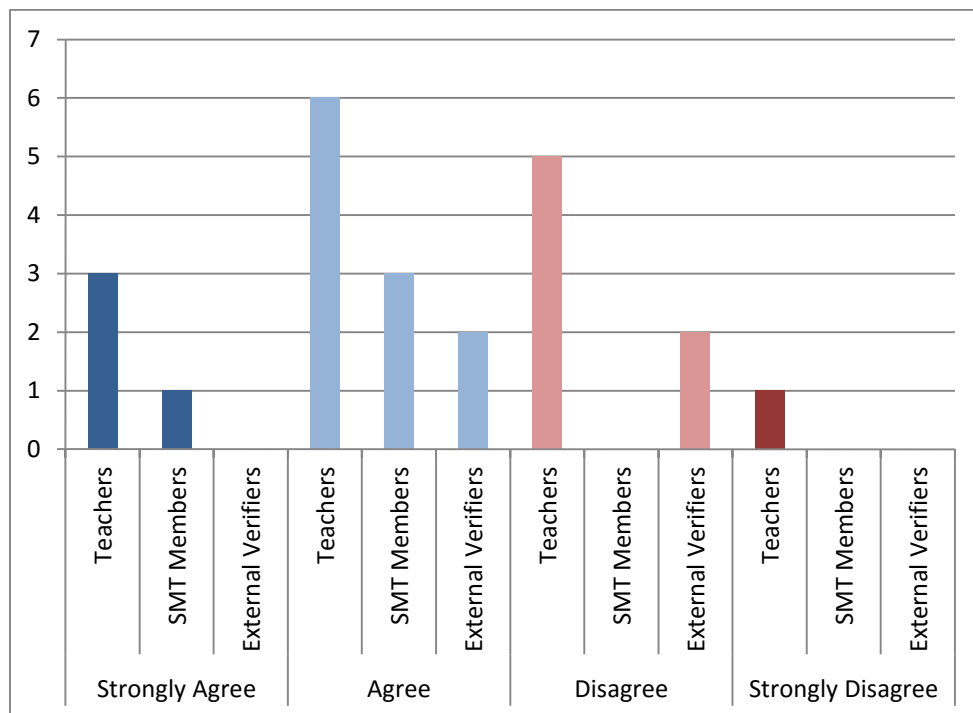

Figure xvi: Responses to item 'The Syllabus is clear in stating the content expected'

Syllabus misinterpretation, along with the sometimes lack of resources, could make SEC vocational subjects more content-driven than expected. Additionally, some teachers pointed at the content stated in the syllabi themselves as being too much for particular levels. To quote another example

from Agribusiness, genetics at Year 9 (Form 3) was considered as too much given that it is suggested in Year 11 (Form 5) for SEC Biology (DQSE, 2008). **A good number of teachers and verifiers believe that some syllabi require some reassessment** and this should be done before the start of the coming scholastic year when new candidates will start to engage with SEC vocational subjects. However, most questionnaire respondents believe that there is time for hands-on experience within current content expectations.
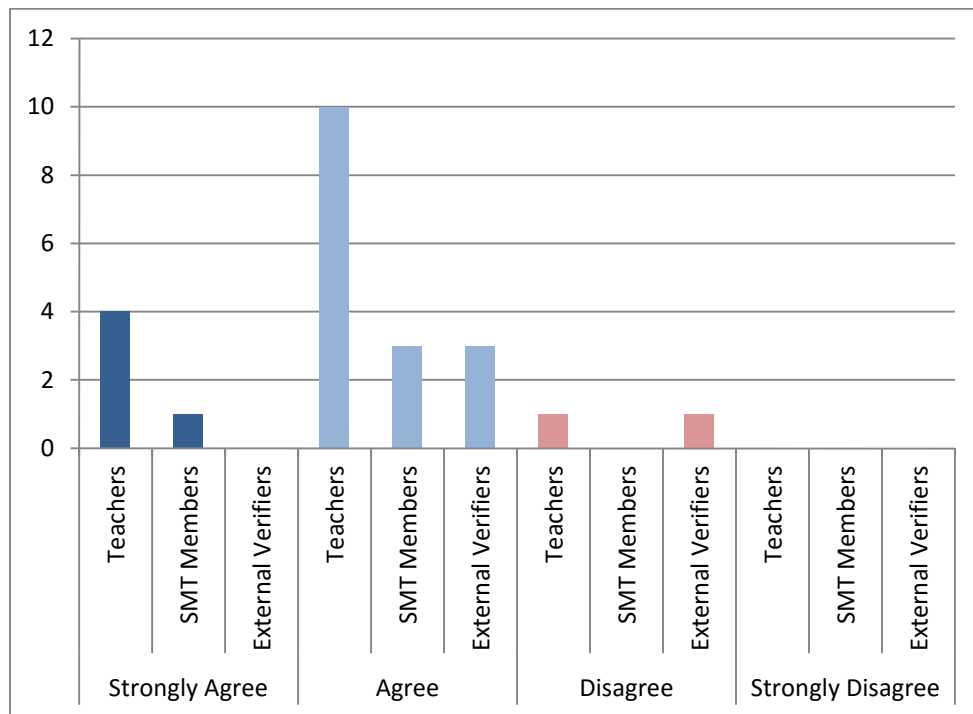
Figure xvii: Responses to item 'The content and level expected by SEC vocational subjects allows enough space for hands-on experience'

The vocational subjects offered are, obviously, much vaster than syllabi can hope to cover through three units in three scholastic years. The comparable BTEC Extended Certificate programmes were made up of two mandatory units and a third one which the teachers, in consultation with MCAST and ITS, opted for. Such system, some educators commented, could increase school autonomy and allow them to better address the needs of particular students. However, another teacher noted, such system would increase differences between schools and candidates who would, ultimately, be assessed for the same qualification level. One would also question the effect that such measure would have on the controlled assessment. Thus, questionnaire responses to this issue where split, with eleven positive and fourteen negative replies.

Figure xviii: Responses to item 'Syllabi should provide a choice of units from which the teacher and students select three'

The Assessments

There were several instances when teachers and internal verifiers, being new to the pilot-project, experienced confusion of what was expected from them. One such case was caused by the adoption of the terms 'take-home' and 'practical' assessment: some educators thought that the practical assessment is the mean mark for all practical assignments carried during the year, as is done in other SEC subjects. Although such misapprehensions were cleared up in meetings with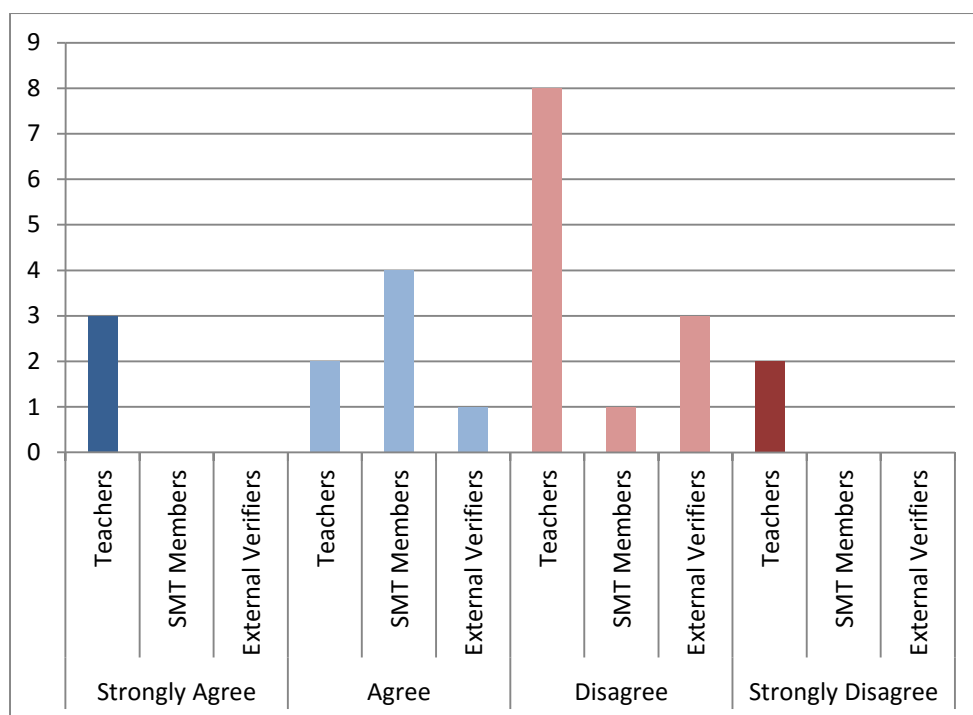 the MATSEC Support Unit, **some educators argued that both assessments might have elements of 'take-home' and 'practical' and suggested reviewing the terms adopted**. One particular teacher simply recommended the use of 'Assessment 1' and 'Assessment 2' as titles. As another teacher put it,

> *There was a misunderstanding at the beginning of this scholastic year and thus Assignment 1 and Assignment 2 (not Assessment and not practical and take home) should be the exact terminology. This is because in each assignment there should be a mix of practical and take home work.*

An external verifier similarly argued,

> *Due to the nature of the vocational subjects it is quite difficult to have a "take home" assignment and a "practical assignment". From what I have seen there was an element of practical and take home in both assignments, which does make sense.*

Questionnaire responses, however, show some disagreement with this, with twelve positive and eleven negative replies. Reasons for this were sought and two teachers provided feedback. They believe that failing to classify learning outcomes as take home or practical might cause more confusion in their selection for assessments. However, they also agreed that there exist a number of differences between SEC vocational subjects and that this practice (classifying grading criteria as

'take home' or 'practical') is illogical for some subjects. These two teachers, met personally, admitted to having now changed their opinion.
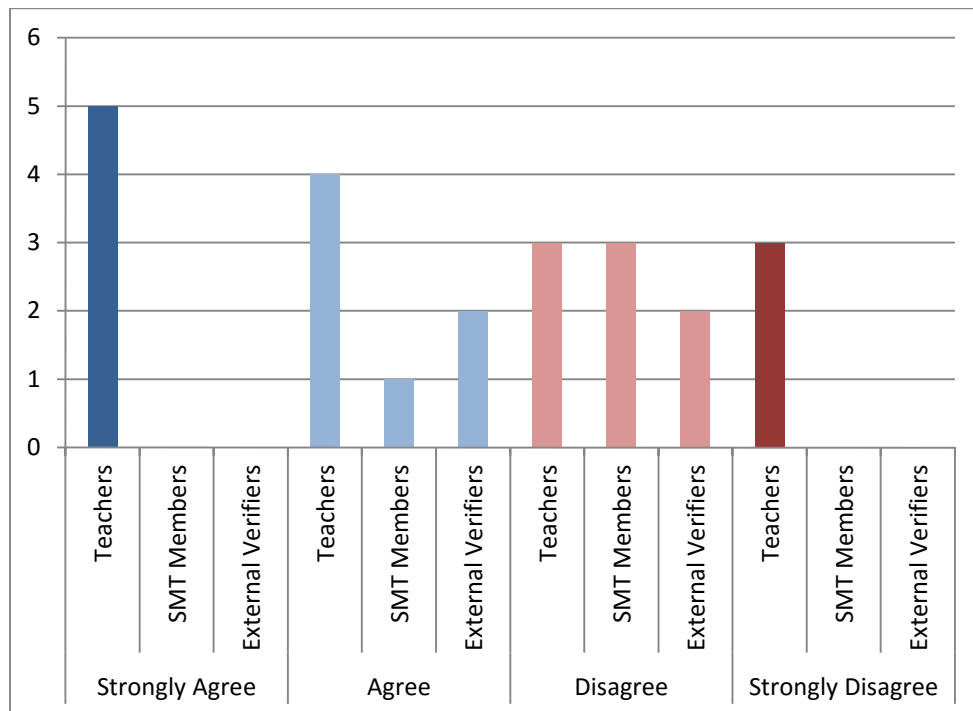

Figure xix: Responses to item 'The terms 'take-home' and 'practical' assessments should be revisited to, for example, 'Assessment 1' and 'Assessment 2''

The controlled assessment sessions proceeded rather smoothly. A group of interviewed candidates noted that knowing which criteria will feature in the controlled assessment allowed them to direct their studies accordingly. A common miscalculation was the time allocated for the assessment, as **most candidates in all subjects were done in less than one and a half hour**.

In addition, some candidates asked whether they can be given the opportunity to **answer questions in Maltese**. These candidates argued that, while in the other assessments they have the time to look up for words and better their writing, this is not possible within the time frame of a controlled assessment. Teachers held that this problem is augmented in SEC vocational subjects where the students are younger than those sitting for other SEC examinations. This, however, might lie in conflict with the SEC Regulations which state that "Candidates are required to answer in the language the questions are set, unless otherwise specified in the examination paper"[2].

Although assessment papers were delivered to schools on time on that same day as done for other SEC examinations, some teachers questioned whether these can be given to the school in sealed envelopes a few days before. This is as some teachers feared the papers would not the delivered or that something happened to the driver. These concerns are more considerable when a practical component is involved as technicians would want to ensure that all required material is present.

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[2]   These   are   retrievable   from   the   MATSEC   website: http://www.um.edu.mt/matsec/regulations/legalnotices/sec_regulations

Other teachers questioned whether the controlled assessment dates can be relocated further towards the end of the year to allow for more teaching time.

A Head of School questioned whether the implementation of a controlled assessment defeats the very purpose of existing structures to provide continuous and formative assessment. This individual held that **the controlled assessment, in practice, still acts as an examination**. Most questionnaire respondents, however, disagreed with this statement. Additionally, a centrally set controlled assessment is, rather inevitably, a traditional pencil and paper test. A particular teacher narrated students' concern that they might fail the controlled assessment as they fail other formal examinations. The students told the teacher that they are working really hard for this given that, one student expressed, this is the only SEC level certification s/he might obtain. These students did, at the end, manage to successfully pass the controlled assessment and their first unit.
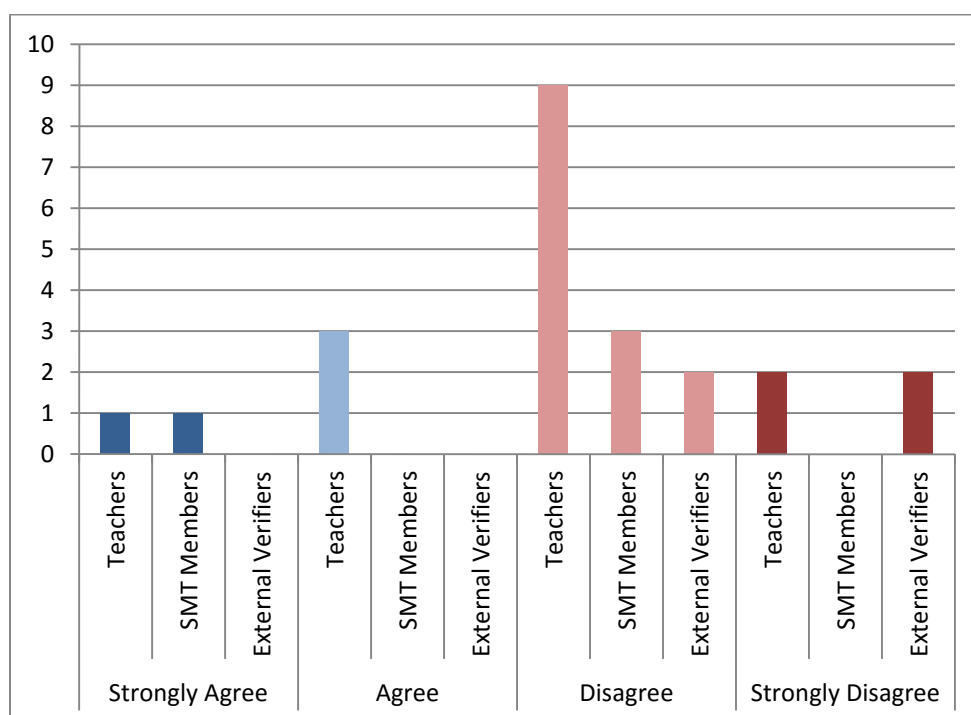
Figure xx: Responses to item 'The controlled assessment defeats the purpose of continuous, formative assessment and should be replaced by an assessment similar to the other two'

Educators in one school questioned whether, in the future, **the design of the controlled assessment could also become part of the teachers' work as this would allow for increased school autonomy and relevance to students**. However, for this to be in place, the same people noted, (i) the system of verification needs to be very trustworthy and (ii) teachers need appropriate upskilling. Others noted, similar to before, that the controlled assessment is similar to a SEC examination and people get paid to construct examination papers of this level. A Head of School argued that, should teachers be expected to construct such papers, and more so if they are upskilled to do so, one would expect them to be remunerated accordingly. One should note that, as stated in an earlier section, MATSEC's original proposal was to have teachers design the controlled assessment. This idea was, however, shot down by teachers who believed a centrally set paper would aid in ensuring that schools

conform to the same set of standards. This view re-emerged through questionnaire responses. One teacher argued that,

Despite the idea of teacher autonomy is attractive, for the time being, it would be wise to keep some degree of control on what is set in assessments especially with respect to the controlled assessment. The shift is so drastic from what is the norm currently. This would be especially problematic when the vocational cohort increases.
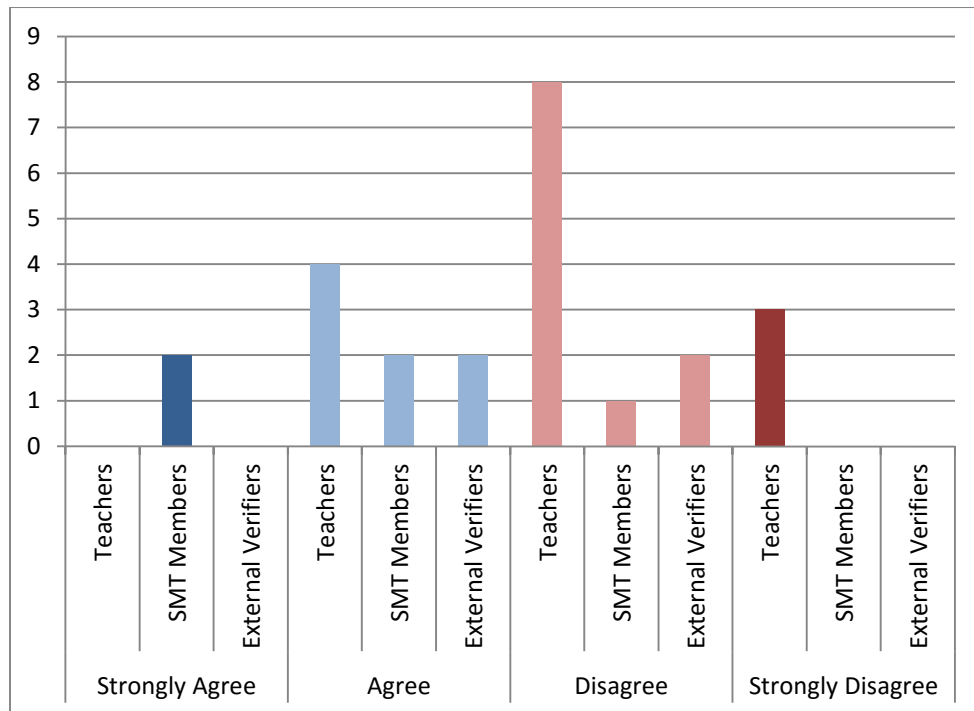

Figure xxi: Responses to item 'Teachers should design the controlled assessment for increased school autonomy and student relevance'
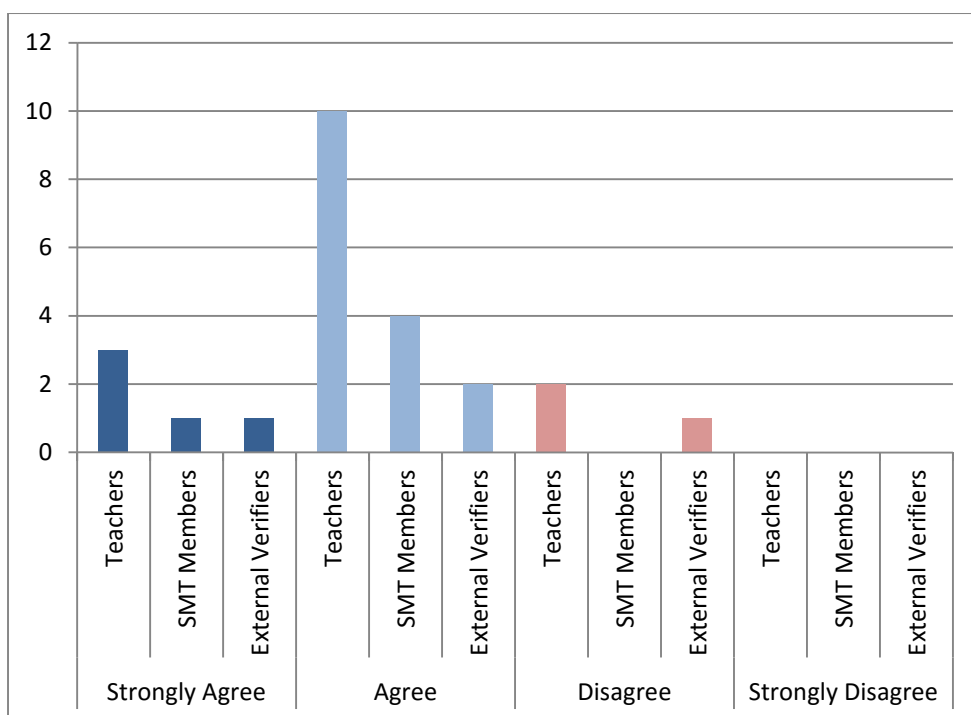
Figure xxii: Responses to item 'A centralised controlled assessment serves to maintain standards'

Subject Choice

Candidates seemed enthusiastic and knowledgeable about the vocational subject studied. All questionnaire respondents agree. The Adviser at the Ministry of Education and Employment (personal communication, May 26, 2015) independently observed this high student engagement and linked it with "the way the vocational subjects are taught enable students to feel responsible for and own their learning". He argued that hands-on learning, on-going support and review, and continuous assessment enable these candidates to engage with learning and perform to the best of their abilities.

Students commented how SEC vocational subjects are different from the other subjects they study at school, describing them as full of activities and interesting, while lauding the help they receive from their teachers. Most of them have related their subject choice to a career they are interested in, ranging from farming to hotel management. Others simply noted that the subjects attracted them because they are 'new', 'interesting' and 'different'. Family background seemed to play a considerable role in these students' subject choice: many, but not all, of the students opting for Agribusiness, for example, come from families where at least one member works in the sector. Thus, in a Maltese context where subject choice is related to career choice (Sammut, 1996), one questions whether education has, in terms of social mobility, managed to move from the feudal system since one's career might still be determined by his/her birth (Sultana, 2002). However, one should note that degrees in related subjects are offered by MCAST and the University of Malta allowing students to further their studies. In one sense, **the recommendation to limit the choice of SEC vocational subjects to one per student might protect against such ills.**
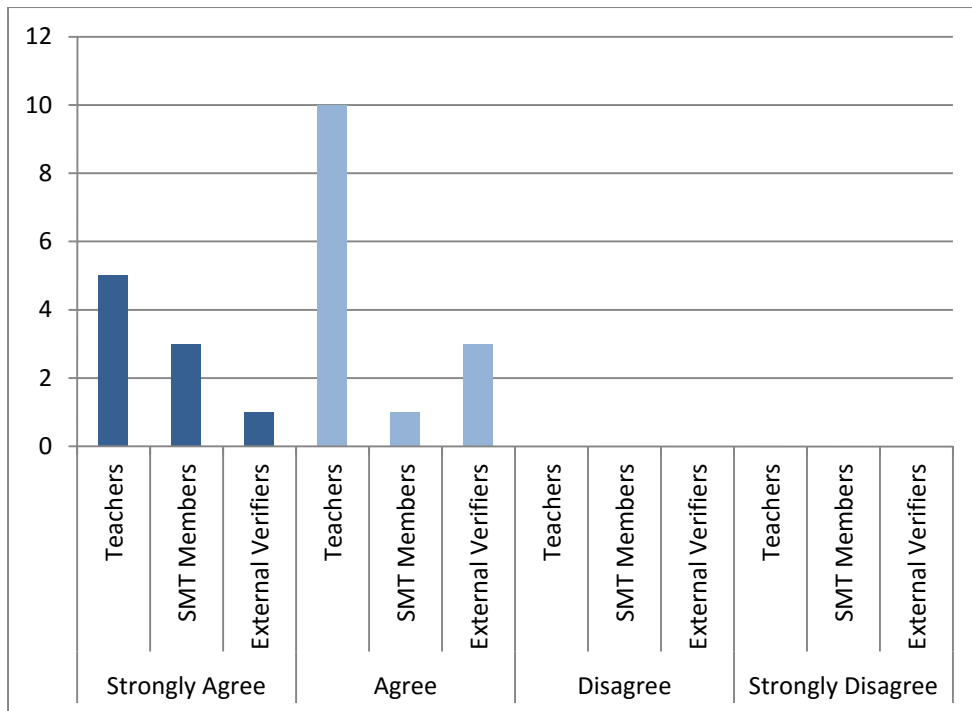
Figure xxiii: Responses to item 'Candidates are enthusiastic about vocational subjects'

Other students, candidates noted, were interested in SEC vocational subjects because they lacked formal, summative examinations. Teachers and internal verifiers also noted this, saying that these subjects offered an oasis to students who wanted to move away from traditional academic subjects. Current students, teachers noted, expressed their positive attitudes in SEC vocational subjects by taking notes, participating in lessons, and working hard together and individually.

Teachers believe that vocational subjects, with their novel means of assessment, reach out to a wider range of students. Most questionnaire respondents agree, though SMT members are divided in half about the issue. These students are not necessarily less able than others; rather they might be turned off by the pressure and expectations of high-stake examinations, as is practice in other SEC subjects. Additionally, much lower fees are another improvement of SEC vocational subjects over the one previously in place as it makes the subjects more accessible to potential candidates.

Figure xxiv: Responses to item 'Vocational subjects reach a wider range of students who would, otherwise, not be addressed in our educational system'

A particular Head of School, however, fears that SEC vocational subjects might turn into new dumping grounds for low ability and disengaged students. This has, he continued, already happened with subjects like art, physical education, home economics and design and technology, which are perceived by some s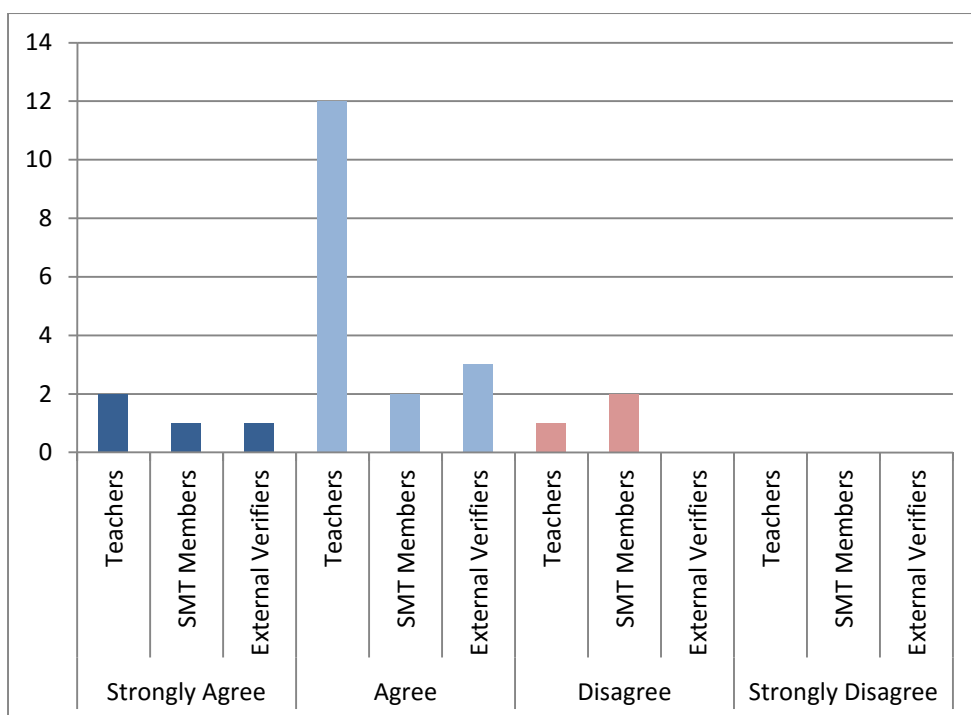tudents to be 'easier' than other subjects. Teachers noted that students opting for SEC vocational subjects would have otherwise opted for these subjects and such displacement, one teacher noted, has resulted in teachers of some subjects becoming redundant. Students opting for SEC vocational subjects in the hope that these are easy options – interviewed teachers, verifiers and candidates noted – will be misguided as SEC vocational subjects require a considerable amount of work. Thus, all questionnaire respondents disagreed with this statement. **The marketing of SEC vocational subjects is essential in promoting the subjects for what they are**, rather than promising routes to qualifications for candidates who do not wish to work.

Several teachers and student teachers who approached the MATSEC Support Unit, however, claimed that, during subject choice meetings within schools, government officials gave students the impression that assessment in SEC vocational subjects, being more continuous, are easier to obtain, claiming that everyone obtains qualifications through this route that involves no stress compared to other subjects. These individuals argued that this situation, whereby students are given the impression of less demanding access to qualifications, is problematic. At the same time, the same people reported, some schools were instructed to filter students applying for vocational subjects based on expert judgement from the SMT and marks obtained in Year 8 (Form 2) through summative assessments in subjects that are mostly academic oriented. Such practice, interviewees held, is not applied for other optional SEC subjects and **undermines SEC vocational subjects' promise of offering alternate routes for learning to different students.** On the other hand, one might argue

that educators are expected to guide students to opt for subjects that they are most likely to succeed in.
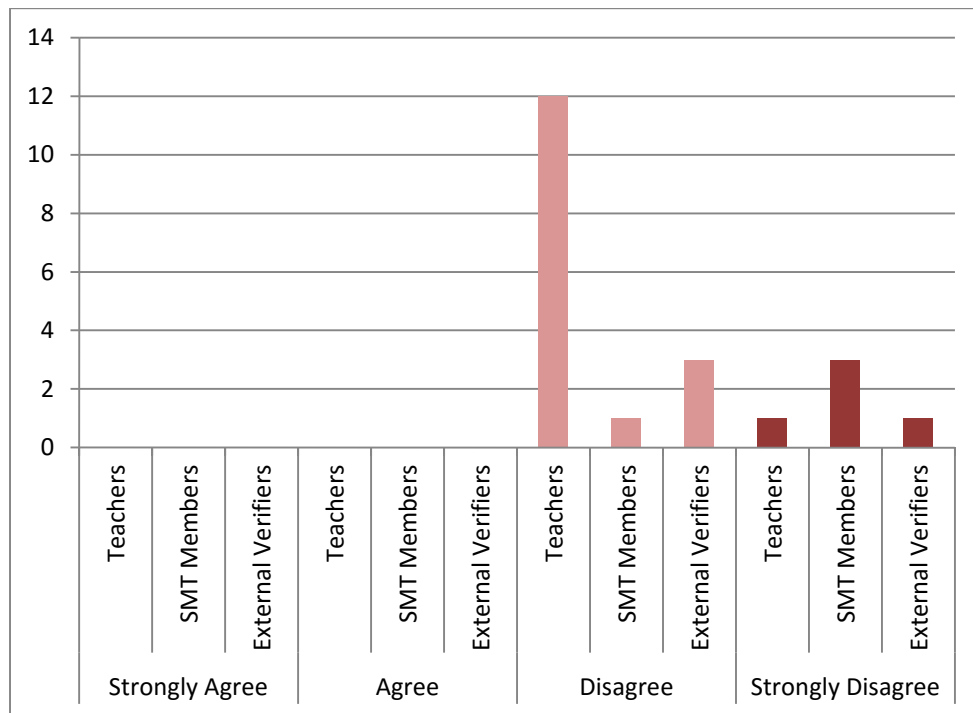
Figure xxv: Responses to item 'Vocational subjects will turn into dumping grounds for low ability and disengaged students'

Teachers held that there exists a misconception that SEC vocational subjects are designed for low ability students, implying that SEC vocational subjects are perceived as having a lower status than other subjects. Besides, there exists the misapprehension, in some cases, that they lead to jobs that are perceived as being less prestigious, such as carers (from Health and Social Care) and farmers (from Agribusiness). Teachers teaching the latter subject noted how other students at school refer to it as "*tal-bdiewa*" (the farmers' subject). Although this is not the case as these subjects can lead to degrees offered by the University of Malta and MCAST, such misconceptions, one Head of School noted, could hinder the selection of the subjects by potential candidates.
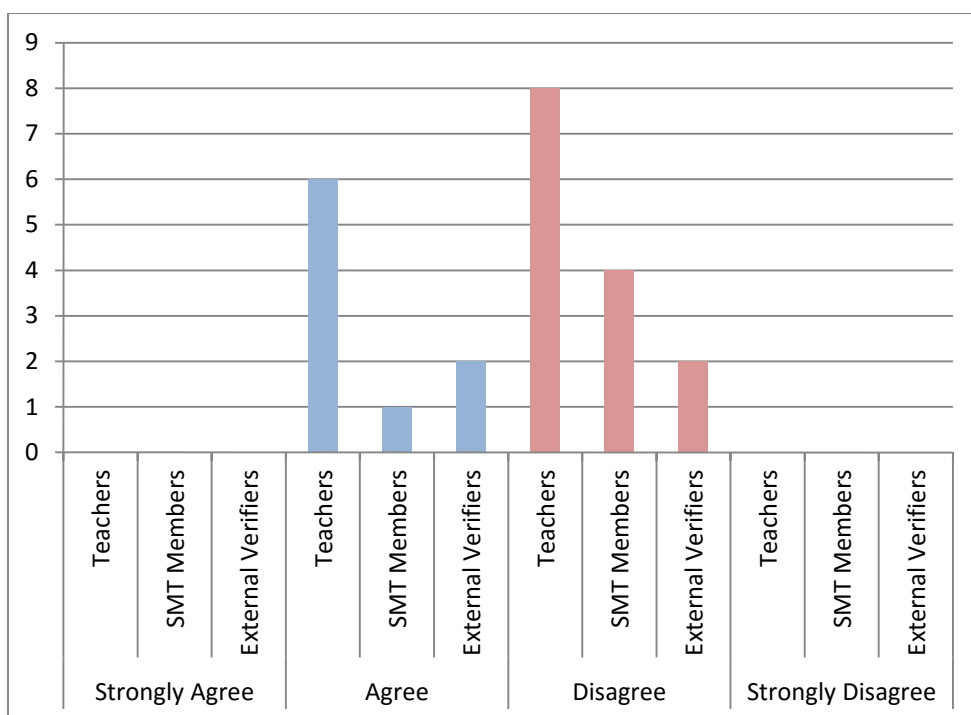
Figure xxvi:　　　Responses to item 'Vocational subjects are perceived as having a lower status than more traditional SEC subjects'

Achievement through Continuous Assessment

In the focus groups held during the first external verification process, interviewed candidates shared the view that attaining the qualification for a SEC vocational subject is simpler than attaining that for another SEC subject since they are more continuously assessed, rather than having their grade depending on a, mostly, pen and paper examination carried at the end of Year 11 (Form 5). During the second external verification, interviewed candidates expressed more elaborate views about their assessment, claiming that it is more valid than a summative examination as they are assessed at different points in time. They claimed that although memory work for the exam is reduced, the level attained through SEC vocational subjects is not lower than that obtained in other SEC subjects. **Reduced stress levels and contextualised learning, a group of candidates held, allows them to think on the subject content and internalise learning.**

Another group of candidates argued that this form of assessment is in itself a learning experience allowing them to remember more once the assessment is over. Teachers and internal verifiers also noted that the vast majority of candidates can obtain a SEC qualification for these subjects, but added that they can only do so if they work continuously throughout the whole three years. "This is something that they previously did not manage in traditional academic subjects that were certified through one summative, centrally-set examination" (Muscat, 2015). SEC vocational subjects offer a route for students who would otherwise be ignored by the system. Although some questionnaire respondents resisted this notion, most agreed that all students, regardless of ability, can obtain the SEC qualification. This has negative implications on the perceived level expected by these new SEC subjects. During the BTEC pilot project in secondary schools, 92% and 93% of the 2011-14 and the 2012-15 cohorts respectively obtained the BTEC qualification (The Adviser at the Ministry of Education and Employment, personal communication, May 26, 2015). Of these, more than a half

and more than two thirds respectively were awarded a distinction, the highest grade in these BTEC certifications. These students, however, were selected by an interview.
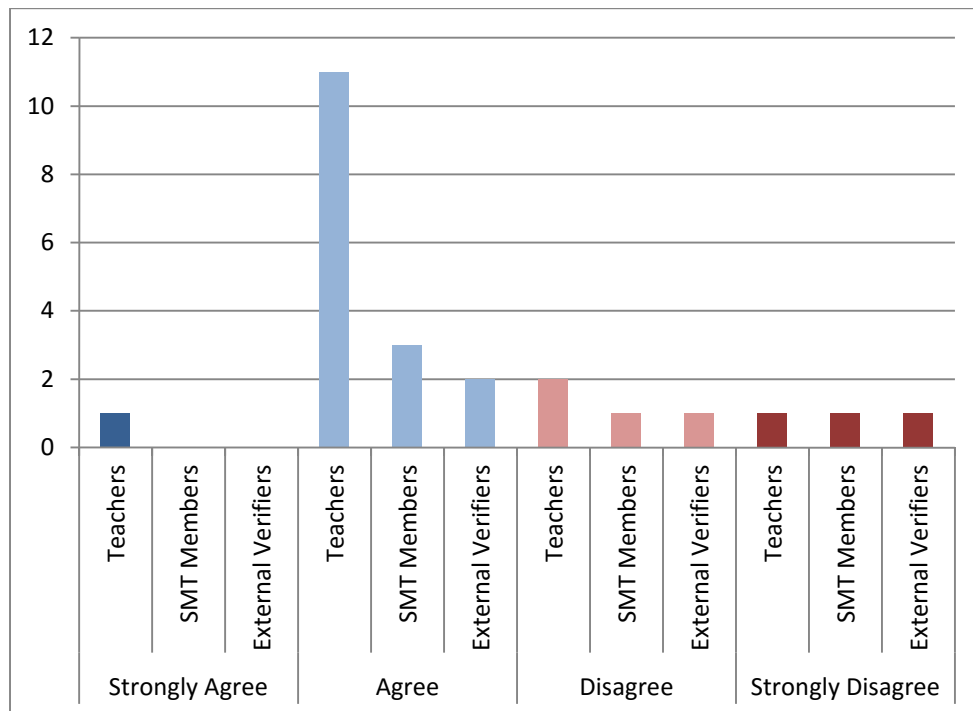
Figure xxvii: Responses to item 'Any student, irrespective of ability, who works hard can obtain a SEC qualification in a vocational subject'

As students are expected to work throughout the whole course, some teachers noted, continuous assessment aids positive student conduct. Candidates are consistently on task; they cannot slack as – some claimed – sometimes happens in other subjects, as this will reflect badly in their final grade. Interviewed candidates tended to support this claim. **This also makes the final grade more valid as it reflects candidates' work along the whole course, rather than in a written examination of a few hours**. All questionnaire respondents agreed with both statements.
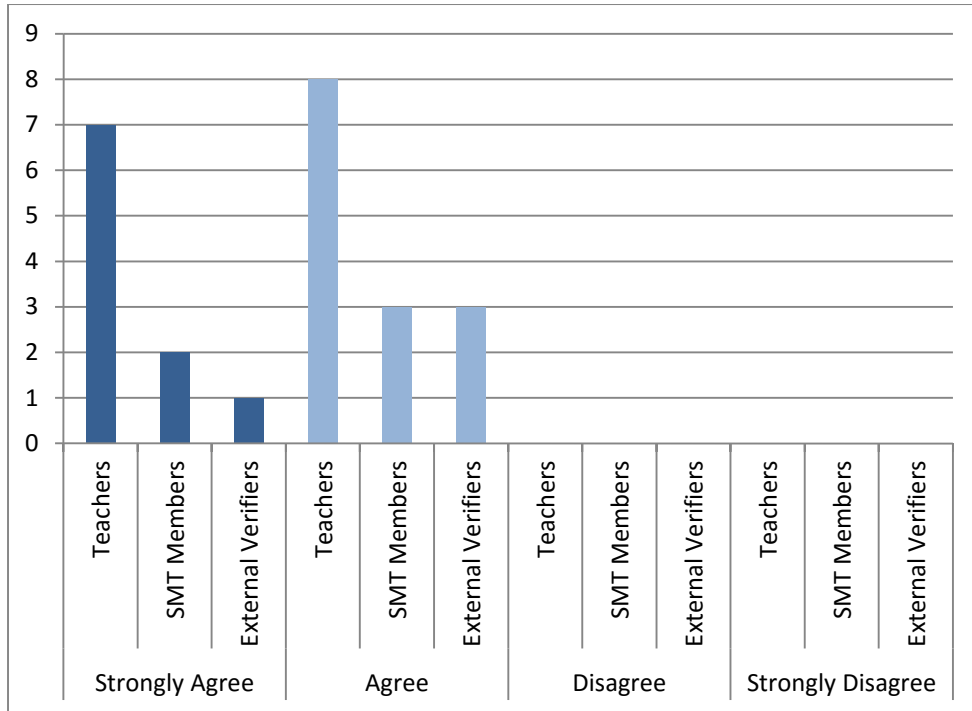
Figure xxviii: Responses to item 'Continuous assessment aids to keep students on task and, as a result, there are improvements in students' behaviour'
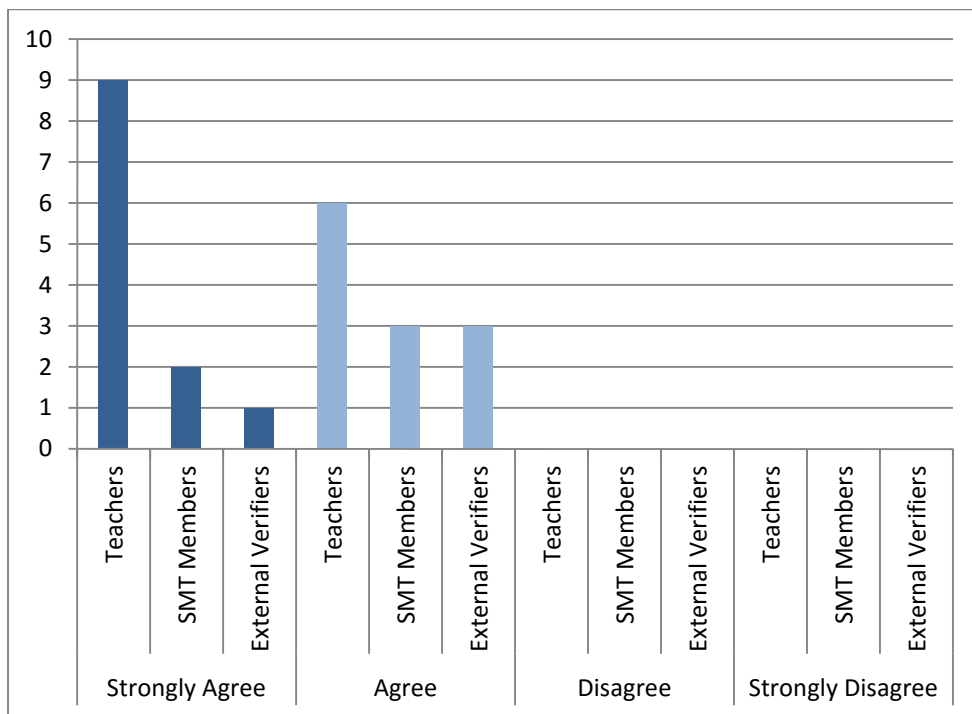
Figure xxix: Responses to item 'Continuous assessment is more valid as it reflects the candidates' work along the whole course'

Other Certifications

Maltese schools had a special arrangement with Edexcel to provide end-of-year interim certifications for students doing BTEC subjects. This certificate, one teacher argued, served as a motivator for students and questioned whether SEC vocational subjects could adopt a similar system. However, one questions whether such a certificate, showing that a candidate has successfully completed part of a course, would then call for a counterpart for other SEC subjects.

The teacher, internal verifier and head of school in one school expressed their opinion that SEC vocational subjects **should have their successors at Intermediate and Advanced Level**, regulated by the MATSEC Examinations Board, as per most other SEC subjects. Another teacher related this with the perceived status of vocational subjects,

> *If learners cannot pursue these vocational subjects at Sixth Form of Junior College then parents and high flyers may perceive them as 'softer' options for low achievers.*

One should note that one can further his/her studies in the vocational subjects offered at SEC level at MCAST if s/he qualifies for admission. In certain subjects, one can transfer from MCAST to the University of Malta, although this path, according to the MCAST Deputy Principal, should be further facilitated. He also argued that suggesting the introduction of such subjects in academically oriented institutions reveals people's notion that vocational institutions and completely vocational studies remain a second choice (personal communication, May 20, 2015). He argued that academic institutions like the Junior College should focus on academic qualifications and leave vocational ones to vocational institutions like MCAST and ITS.

Other educators questioned the introduction of some vocational subjects, such as Hairdressing, at secondary level. While existing SEC vocational subjects are seen as extensive enough to be relevant to a wide range of candidates, Hairdressing, a Head of School argued, promoted a single career path. This, he continued, should not be the role of compulsory education.

Two teachers and the SMT within a school argued that SEC vocational subjects, and possibly all SEC subjects, should be extended to, through additional forms of assessment, accommodate and certify Level 1 candidates. Right now, certifications for these candidates are managed by other bodies and these teachers felt that this is a piecemeal solution. All interviewed teachers agreed that **SEC qualifications find ways to account for Level 1 learning outcomes**. Teachers in a particular school emphasized that such steps cannot be taken solely in SEC vocational subjects, but in all SEC subjects. They argued that if only SEC vocational subjects benefit from such measures, this will further emphasise the idea that they are of a lower level than other SEC subjects. Such measures could, teachers argued, partially address student disengagement which, some feared, could be an issue in SEC vocational subjects in the coming years as candidates will no longer be filtered through an interview.

Transferability to other Subjects

When asked whether a similar system of continuous assessment can be adopted for other SEC subjects, teachers, internal and external verifiers and SMT members all perceived this as the way forward. **They felt that this system is more formative; results in increased students' learning; is more valid as candidates are assessed continuously; and is more reliable as candidates can be**

assessed by a variety of tools. As one Head of School noted, continuous assessment exerts controlled, reasonable pressure on students, educators and schools, rather than applying all this pressure in one instance. This level of anxiety is seen as more conductive to teaching and learning (see Yerkes-Dodson relationship [Yerkes & Dodson, 1908]). Thus, except for two SMT members, all questionnaire respondents agreed that such assessment could be the way forward.
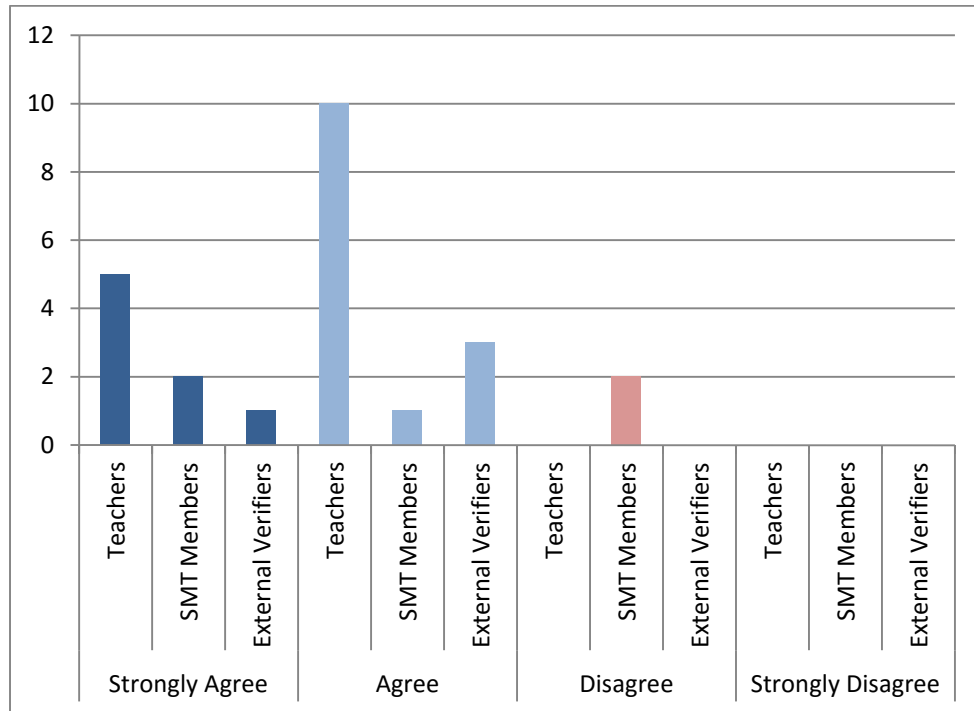

Figure xxx: Responses to item 'Continuous assessment as in SEC vocational subjects should be adopted in all other SEC subjects'

Candidates, while admitting they prefer this system of continuous assessment, were more sceptic of its adoption in other subjects. **Candidates from different schools emphasized that different subjects have different requirements**. While seeing the present system as positive for SEC vocational subjects and believing that it could be expanded to some other subjects (mathematics and the sciences were specifically mentioned), interviewed candidates held that some subjects, such as the languages and subjects where rote memory is not a big factor, are better assessed through summative examinations. The idea that there is no single best route to qualifications is not limited to Maltese students, but has been noted by Elwood (2012) through focus groups with students. They also contended that excessive reliance on vocational type assessment resulted in some students becoming more stressed due to the constant submission of assignments and examinations.

While some candidates believed that more knowledge and skills would be retained through a more continuous form of assessment, **others shared the view that content-levels of candidates finishing compulsory education would be lower** as they would not be tested on – and hence not expected to remember – all the material covered along the years. However, all questionnaire respondents but one external verifier disagree with the latter candidates' claims. One teacher argued that such views are reminiscent of a system that is examination-centred. What if, this teacher continued, we had to ask a group of eighteen-year-olds what they remember most from schooling? Would they remember

the content they studied by heart for summative examinations, or would they value the skills and content learned through continuous assessment? This question remains, thus far, unanswered.
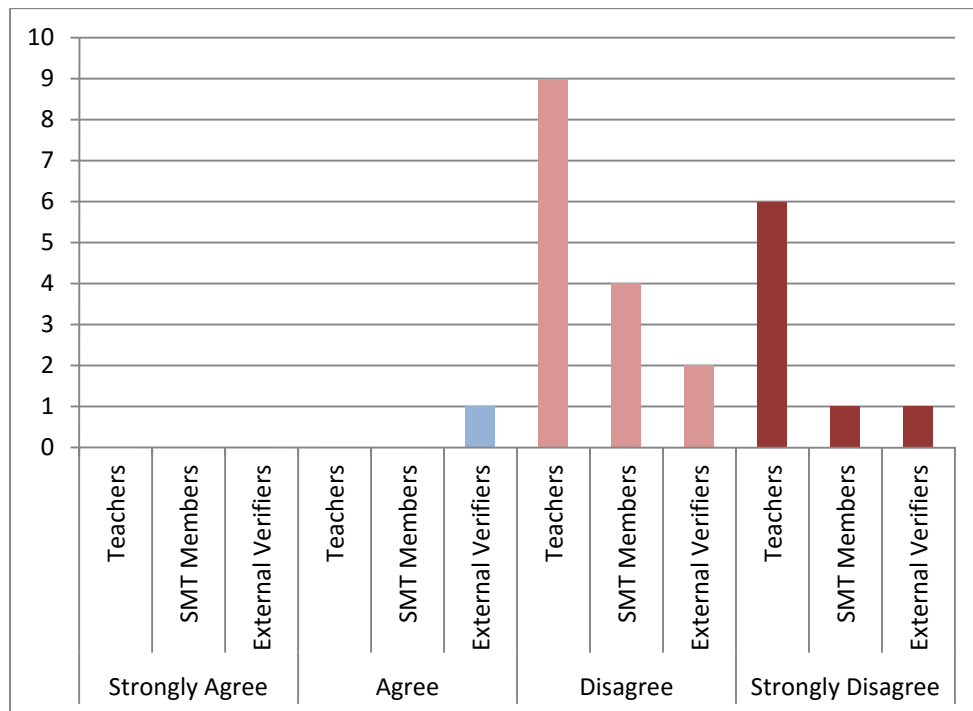
Figure xxxi: Responses to item 'Due to the lack of a final assessment, at the end of the course students will not have truly mastered all content and skills taught'

The concept of a spiral curriculum was briefly explained to students and they were asked whether such a curriculum coupled with continuous (rather than summative) assessment would ensure that they do not forget material while progressing along the years. This concept, however, seemed alien to the candidates and they anticipated it would confuse students. Since an area would not have been learnt robustly enough, candidates argued, a spiral curriculum would limit, rather than encourage, linking of content within the subject. As verified through questionnaire responses, **contrary to what candidates believe, teachers and verifiers were generally in favour of spiral curricula** seeing these as an excellent solution to combine continuous assessment with the need of adopting content-levels to the development of the students' levels of skills and understanding. However, one would also need to ask what would happen of candidates who fail a unit: can they proceed to the next unit before sitting for and passing the synoptic test if this is built on the previous one?

Figure xxxii: Responses to item 'A spiral curriculum, with on-going and controlled assessments, ensures that all material is revised and mastered by students'

Candidate Results

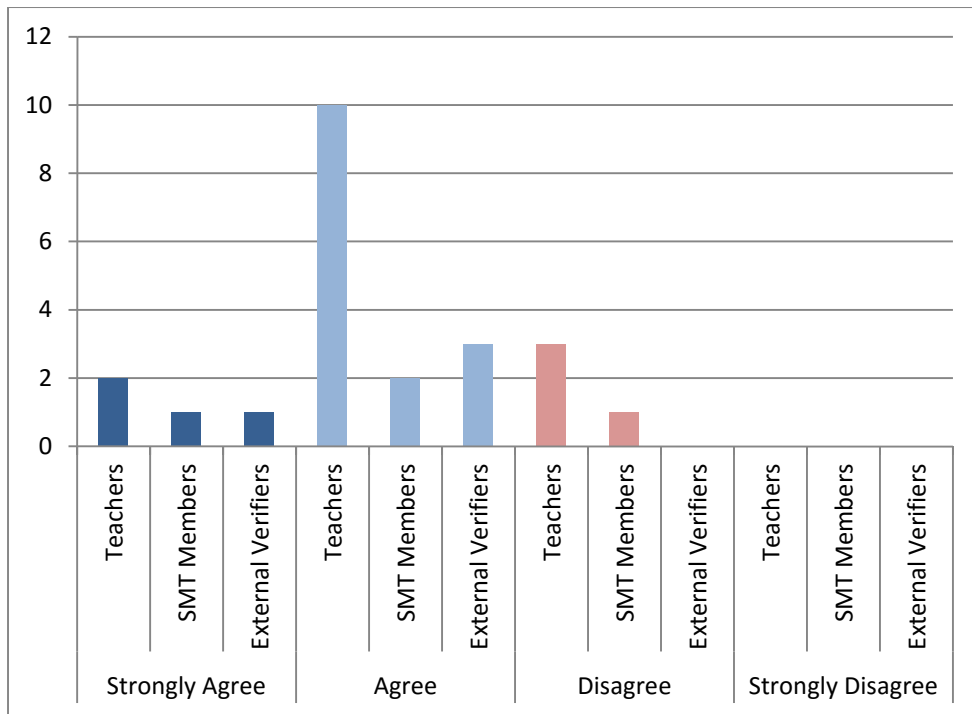In this section the scores obtained by candidates in the different assessments across the five SEC vocational subjects introduced in the scholastic year 2014/15 will be analysed. To facilitate analysis, all candidate raw scores were converted to percentage marks. Of the 92 candidates registered this year, one did not submit any assignment since s/he dropped the subject after registration while one candidate was absent for the controlled assessment. The scores for these two candidates will be ignored for analysis.

Four candidates, apart from the two mentioned above, did not obtain a score that merits them a pass at Grade 5 or better. Thus, in total, five candidates were eligible for the synoptic assessment at the end of the scholastic year. All these candidates were registered for SEC Hospitality. The teachers claimed to have done their utmost to encourage these candidates to perform, however, due to a number of issues, this proved difficult. It is worth noting that, of these five candidates, three did not apply for the synoptic assessment by the deadline stipulated (Friday 26th June). The MATSEC Support Unit contacted the school's headmaster who asked the candidates to contact the MATSEC Support Unit. Such measures of hand-holding will not be possible in the future as the number of candidates increases.

Correlation Coefficients between the three Assessments

The data in the table below shows that the correlation between candidates' scores is statistically significant when comparing any of the two assessments. This is lowest between assessment 2 and assessment 3 (0.376) and highest between assessment 1 and assessment 3 (0.640). The correlation between assessment 1 and assessment 2 lies in between these two values (0.497). The two figures that follow illustrate this.

Table 9:   Correlations between candidates scores for the three assessments

		Assessment 1	Assessment 2	Assessment 3
Assessment 1	Pearson Correlation		.497**	.640**
	Sig. (2-tailed)		.000	.000
	N		90	90
Assessment 2	Pearson Correlation	.497**		.376**
	Sig. (2-tailed)	.000		.000
	N	90		90
Assessment 3	Pearson Correlation	.640**	.376**	
	Sig. (2-tailed)	.000	.000	
	N	90	90	

**. Correlation is significant at the 0.01 level (2-tailed).
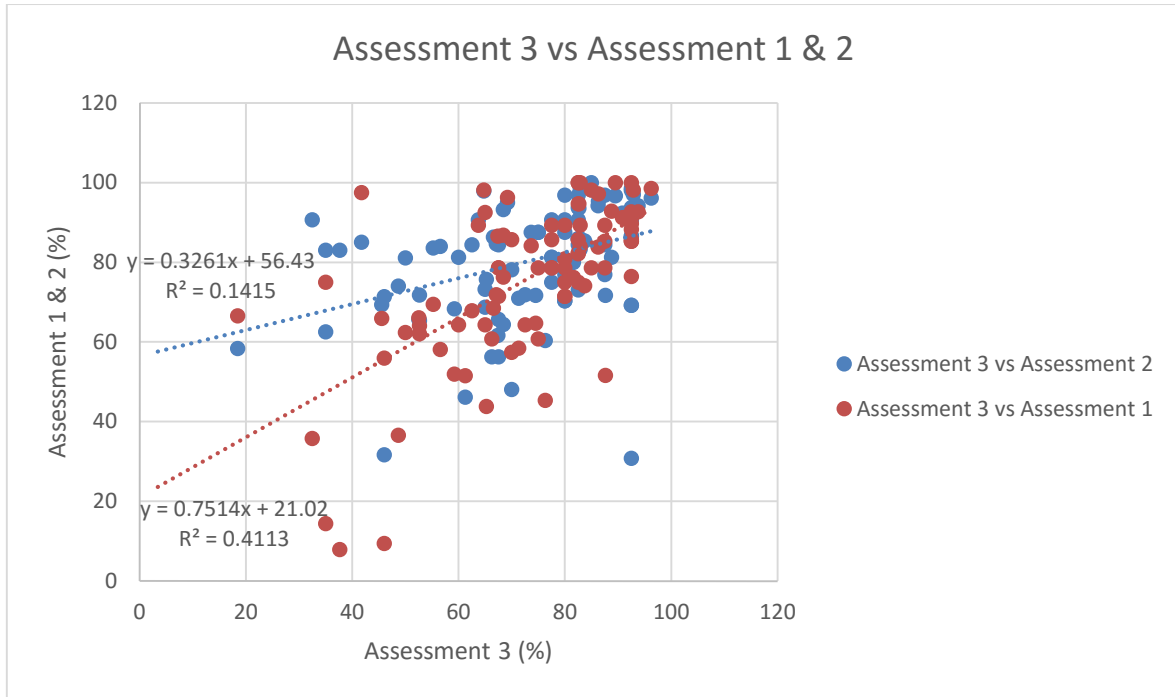
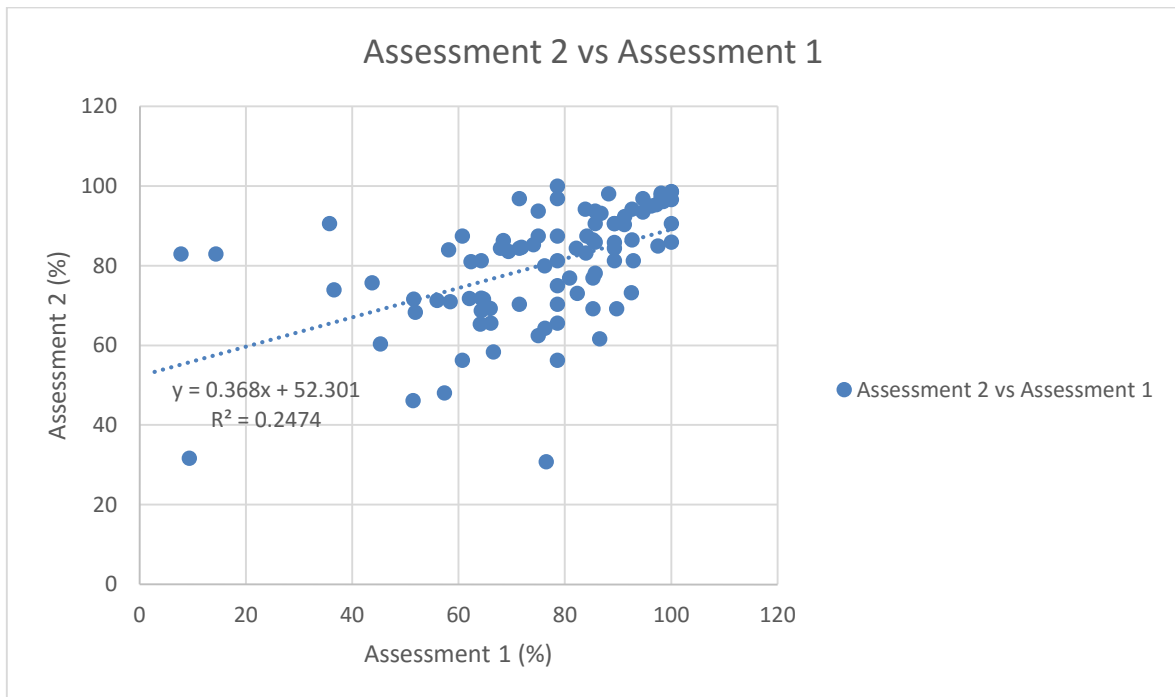Figure xxxiii: X-Y scatter plot for scores in assessment 3 against the other two assessments

Figure xxxiv: X-Y scatter plot for scores in assessment 1 and 2

Although there are a number of notable outliers, these lie on both sides of the trend-line. This set of data suggests that the candidate scores obtained in the three assessments are mostly comparable and related to one another. This is as expected for a system that operates fairly.

Mean Scores

Across different assessments, candidates obtained a range of marks. In all assessments there were candidates who performed extremely well and others who did not perform so well.

Table 10: Descriptive Statistics for the three Assessments

	Assessment Number		
	1	**2**	**3**
Mean (%)	76	80	73
Minimum (%)	8	31	18
Maximum (%)	100	100	96
Range (%)	92	69	78

Data from the table above suggests that candidates, overall, did better in assessment 2. A one-way ANOVA confirms that the scores obtained by candidates in assessment 2 are significantly higher than those obtained in assessment 3, although the difference between assessment 1 and assessment 2 is not statistically significant.

Table 11: One-Way ANOVA comparing candidate scores across the three assessments

(I) Assignment	(J) Assignment	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1.00	2.00	-4.47778	2.55046	.080	-9.4993	.5438
	3.00	2.76667	2.55046	.279	-2.2549	7.7882
2.00	1.00	4.47778	2.55046	.080	-.5438	9.4993
	3.00	7.24444[*]	2.55046	.005	2.2229	12.2660
3.00	1.00	-2.76667	2.55046	.279	-7.7882	2.2549
	2.00	-7.24444[*]	2.55046	.005	-12.2660	-2.2229

*. The mean difference is significant at the 0.05 level.

These differences might vary across the different subjects, as suggested in the figure below. The following figure and table also indicated that, with the exception of Information Technology, the scores obtained by candidates in the controlled assessment were lower than those obtained in the other assessments. One should note that the Information Technology controlled assessment was the only one to incorporate a hands-on practical component.
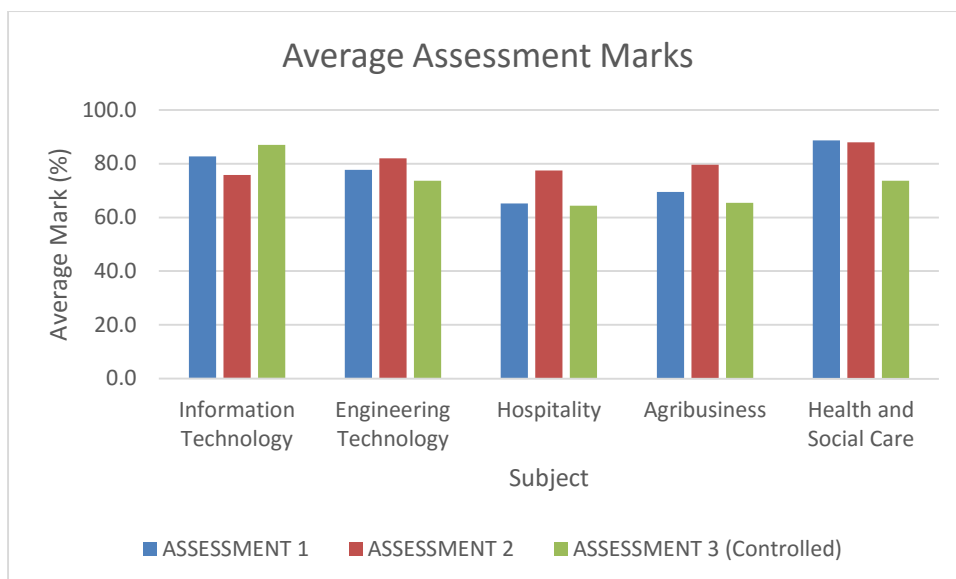
Figure xxxv: Average mark for the three assessments across subjects

Table 12: Average mark for the three assessments across subjects

	ASSESSMENT 1	ASSESSMENT 2	ASSESSMENT 3 (Controlled)	MEAN
Information Technology	82.7	75.8	87.0	81.9
Engineering Technology	77.8	82.0	73.7	77.9
Hospitality	65.2	77.5	64.3	69.0
Agribusiness	69.5	79.6	65.4	71.5
Health and Social Care	88.7	87.9	73.6	83.5

A one-way ANOVA flags notable differences between the mean marks obtained by candidates in all assessments across the five SEC vocational subjects. Scores obtained by candidates in SEC Hospitality are statistically significantly lower than those obtained by candidates in all subjects but SEC Agribusiness while those obtained by candidates in SEC Agribusiness are statistically significantly lower than those obtained by candidates in two of the other SEC subjects. There are no statistically significant differences between SEC Information Technology, SEC Engineering Technology and SEC Health and Social Care. **This suggests that candidates might have performed less well in SEC Hospitality and SEC Agribusiness.** Reasons for this could stem from learner differences but also from factors external to the learners, such as syllabus content, difficulty of assessment and teachers.

Table 13: One-Way ANOVA comparing candidate scores across the five vocational subjects

(I) Subject	(J) Subject	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
V-HOSP	V-ENTE	-8.94286[*]	2.54203	.001	-13.9480	-3.9377
	V-INTE	-12.88889[*]	3.15700	.000	-19.1049	-6.6729
	V-AGRI	-2.47619	4.12022	.548	-10.5887	5.6363
	V-HESC	-14.51852[*]	3.74908	.000	-21.9003	-7.1368

V-ENTE	V-HOSP	8.94286[*]	2.54203	.001	3.9377	13.9480
	V-INTE	-3.94603	2.96005	.184	-9.7742	1.8822
	V-AGRI	6.46667	3.97133	.105	-1.3527	14.2860
	V-HESC	-5.57566	3.58480	.121	-12.6340	1.4827
V-INTE	V-HOSP	12.88889[*]	3.15700	.000	6.6729	19.1049
	V-ENTE	3.94603	2.96005	.184	-1.8822	9.7742
	V-AGRI	10.41270[*]	4.39047	.018	1.7681	19.0573
	V-HESC	-1.62963	4.04420	.687	-9.5925	6.3332
V-AGRI	V-HOSP	2.47619	4.12022	.548	-5.6363	10.5887
	V-ENTE	-6.46667	3.97133	.105	-14.2860	1.3527
	V-INTE	-10.41270[*]	4.39047	.018	-19.0573	-1.7681
	V-HESC	-12.04233[*]	4.83375	.013	-21.5598	-2.5249
V-HESC	V-HOSP	14.51852[*]	3.74908	.000	7.1368	21.9003
	V-ENTE	5.57566	3.58480	.121	-1.4827	12.6340
	V-INTE	1.62963	4.04420	.687	-6.3332	9.5925
	V-AGRI	12.04233[*]	4.83375	.013	2.5249	21.5598

*. The mean difference is significant at the 0.05 level.

The Synoptic Assessment

Five candidates applied for SEC Hospitality synoptic assessment obtaining the following marks:

Table 14:   Marks obtained by candidates sitting for SEC Hospitality synoptic assessment

Candidate	Mark (%)
A	50
B	27
C	31
D	51
E	46

The average mark obtained by these five candidates is 41%, quite lower than the average obtained by all candidates in all of the other assessments in all subjects, where the average was never lower than 64%. The highest mark obtained is also quite low compared to that in all other assessments. This suggests that, as expected, **the synoptic assessment is more challenging than any one of the other assessments**. On the other hand, low scores can be justified since candidates sitting for the synoptic assessment are, most probably, the weakest candidates. Two of the five candidates managed satisfy the threshold of 50% to be considered to have passed the synoptic assessment. The other three candidates will have to sit for the synoptic assessment for a second and last time in the coming year if they intend to obtain an MQF Level 3 qualification.

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Appendices

Appendix A: Documents in the Masterfile

Course Documentation (General)

1. Course Specification
2. Regulations
3. List of Students registered
4. Unit Distribution Plan
5. Updated list of Tutors who are going to teach a specific unit
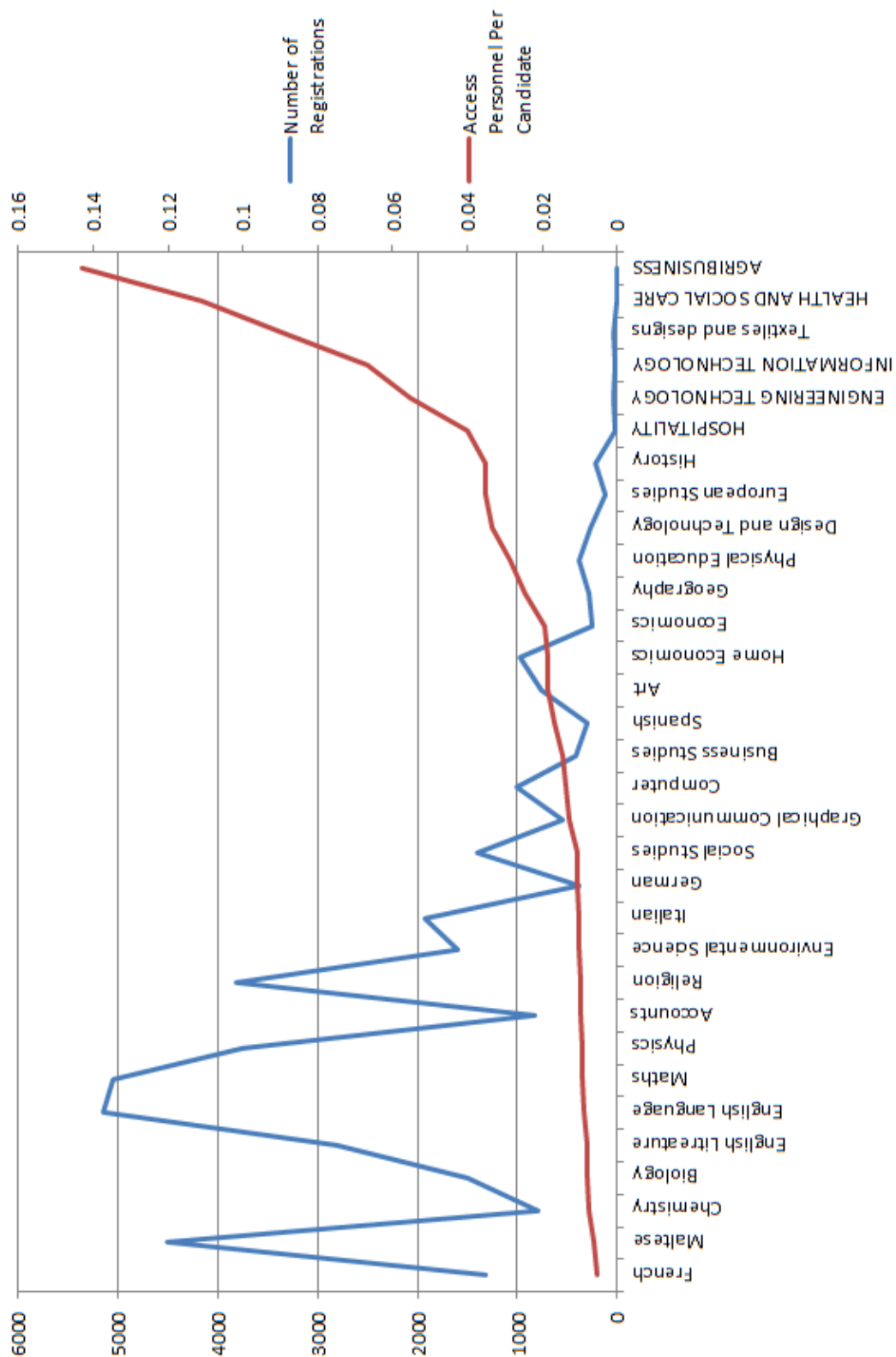
Course Documentation per Study Unit

6. Study Unit Name
7. Study Unit (LO, Unit Content, Grading Criteria)
8. Scheme of Work
9. Record of Work
10. Task Record Sheet, Assignment Brief, Internal Verification (Assignment Brief Verification Record, Assessors Verification Record, Marking Scheme)
11. Unit Evaluation Record (Done by Teacher)
12. Students' Views (Questionnaire should be distributed to students)
13. Result sheets
14. Other Relevant Documentation (such as meeting minutes)

Appendix B: An Example of a Unit Feedback Sheet

MATSEC SUPPORT UNIT University of Malta Msida		SEC		2014 - 2017
	SCHOOL:	Gozo College Boys BSS (80)		
	YEAR:	Form 3		
	SUBJECT:	Agribusiness		

ASSIGNMENT BRIEF - FRONT SHEET

SUBMISSION

STUDENT'S NAME:		ID CARD:			
UNIT TITLE:	Plant and Soil Science	UNIT:	1	ASSIGNMENT:	3 of 3
TEACHER'S NAME:		DATE SET:			
VERIFIER'S NAME:		DATE DUE:			
ASSIGNMENT TITLE:					

TEACHER'S FEEDBACK

MAX POINTS	Knowledge (K) 4 - Comprehension (C) 6 - Application (A) 10	
GRADING CRITERIA	POINTS ACHIEVED	COMMENTS ON CRITERIA
K1		
K3		
K4		
K5		
K10		
C3		
C4		
C5		
STUDENT'S COMMENTS		

ASSESSOR'S SIGNATURE:		EXTERNAL VERIFIER'S SIGNATURE:	
DATE:		DATE:	

Appendix D: Suggested Timeframes

Date	To Do	Who
September	Students register to follow Vocational Units	Student
September	Teachers and Internal verifiers are assigned for particular units on relevant template	Headmaster
September	Meeting is organised in order to inform teachers and Internal Verifiers about any changes	Headmaster
September	Assignment Briefs are written and relevant templates are filled in	Assessor
October	Assignment Briefs are passed on for Internal Verification	Assessor
October	Photocopies of Front Sheets and Assignment Briefs are done and passed on to students	Teacher
End Autumn Half Term	Staff Meeting is organised	Headmaster
February	Preparation for External Verification Visit	Headmaster
End of Second Term	Staff Meeting is Organised	Headmaster
2nd – 13th March '15	External Verification Visit takes Place	Headmaster/ Internal Verifiers/ Assessors
25th May 2015	Controlled Assessment	MATSEC Invigilation
May	Preparation for External Verification Visit	Headmaster
First Week of June	Controlled Assessment is corrected	Assessor
First Week of June	Unit Evaluation Report is done	Assessor/Internal Verifier
October – First Week June	All corrected assignments are internally verified.	Internal Verifier
8th – 12th June 2015	External Verification Visit takes Place	Headmaster/ Internal Verifiers/ Assessors
15th – 19th June 2015	Results are sent to Student and MATSEC Support Unit	Headmaster
End of Third Term	Staff Meeting is organised	Headmaster
22nd - 26th June 2015	Registration of Synoptic Assessment / Appeals	Student
7th July 2015	Synoptic Assessment will take place at MATSEC Support Unit	MATSEC Support Unit
3rd week of July 2015	Marks of Synoptic Assessment are sent to student and school	MATSEC Support Unit
Last week of July 2015	Student register to appeal from mark of whole unit	Student