Addressing the Industry’s Expectations from Educators in a Professional Higher Educational Institution

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Abstract: This study aims to address the aviation industry’s expectations from educators in a professional higher educational setting. Ongoing research reveals the need for the educator to minimise the gap regarding employability skills within the stakeholders’ group. Although educators need to embrace a holistic approach in order to cater for all types of students, being an educator in a higher education institution demands getting to know and addressing the industry’s expectations. This study aims to reduce the aforementioned gap by acting as a link between the industry and MCAST. The rigorous process of data acquisition and data analysis ensured that a theoretical model was compiled and discoveries were explained. The findings and the model attempt to put forward the ideal pedagogy and suggestions for educators’ consideration. This pedagogy guides and helps the students to experience the necessary soft skills and transversal skills demanded by the industry and, aids students to understand knowledge and its relevance, offering a more holistic approach in pedagogy for educators to consider. By acting as a role model with the right attitude, the educator can greatly impact the student. Supported by MCAST and the aviation industry itself, the educator can present a well-prepared, valued, and employable student.

Keywords: Employment, MCAST, educators, industry expectations, pedagogy, professional higher education, grounded theory, industry-educator link

Background to the Study

MCAST is a professional institution and a gateway to the industry (MG2i). Thus, educators need to understand what the industry expects from them in order to prepare the students for employability. Educating and training students to be employable beyond their graduate year often proves to be a challenge. Therefore, educators should seek to improve professionally by questioning and understanding their role as educators. This goes in line with Cedefop (2019), which highlights that adapting to change is a vital skill in modern-day jobs and workplaces. Educators who continuously seek to develop professionally successfully adapt to change and in so doing, they nurture this crucial skill in their students. Notably, MCAST is different from other higher education institutions. Students study at MCAST with a set aim to master a professional course relevant to their own interest. The lecturing academics should prepare the students to be industry-ready and academically sound, by the end of their course. This is easier said than done since apart from teaching the students, educators also carry out other important tasks, such as continuous preparations and pastoral care with the students. Vocational and non-vocational educators in MCAST are provided with a curriculum, which they need to cover in order to help students progress from one level to the next. This raises a significant
question: Do educators know how to prioritise learning outcomes according to industry needs? Educators must not only teach but also convey the curriculum, identify the industry-desired skills in it and pass these teachings on to students.

Since MCAST employs both vocational and non-vocational (key skills) educators, it is of great importance to investigate and discover what impact these two types of educators have on each other to satisfy industry needs. The use of the word expectations in this study relates to the attempt to discover any possible suggestions, opinions, propositions, guidelines, or constructive curriculum criticisms in order to help educators improve their pedagogy. However, this research is not limited to the above-mentioned expectations, but rather left open so as to prevent biased outcomes. The main objective is to gather through research how these two categories of educators, guide students and prepare them to be industry-ready and employable for future jobs.

Literature Review

Ongoing educational debates tend to focus on graduates and employability skills, stressing the lack of understanding among students, educators, and industry expectations on employability skills (Collet et al. 2015). In their findings, Tan et al. (2017) draw important conclusions since they highlight the gap and mismatch amid industry, academics, and students, referred to as the stakeholders’ group. They suggest that this lack of commonality in skills needs to be addressed in order to produce better quality employees who are ready to meet employers’ expectations. Similarly, the National Research Council (2012) argues that the lack of understanding of skills within the stakeholders’ group has led to a lack of important links among them. In other words, employers, educators, and students are parallel groups, meaning that there is no common meeting point in understanding the skills needed (Mourshed et al. 2012). In the early 2000s, literature that compared the stakeholders’ group values in these skills, was very limited. In fact, in their study, Wickramasinghe and Perrera (2010), recommend future empirical researchers to study the links among the stakeholders’ group on employability skills (see Figure 1). Only in recent years has important literature been published (Chinzer and Russo 2018; Dinning 2017; Lowden et al. 2011; Shafie and Nayan 2010; Singh et al. 2013; and Tan et al. 2017), that explores the skills required by graduates to satisfy the employers’ needs from an employer’s perspective. These skills are discussed in further detail below (see Figure 1). The lack of literature that investigates the relationship between employers and educators, generates the need for further empirical research. Indeed, the purpose of this study is to address this gap in literature, that is, to understand the link between industry and educators. Understanding and outlining what the industry expects from educators will assist the latter to focus on how to instil essential skills in students, thereby improving their employability.
Addressing the industry expectations from Educators in a professional higher educational institution – An aviation perspective

Stakeholders group

Institutes/lecturers

Industry/Employers

Students

Employability

Expectations from higher education and Universities
- Singh et al., 2013
- Winstead et al., 2017
- Harvey, 2000
- Cox and King, 2006
- Hegarty and Johnstone, 2008
- Malhi, 2009
- Tan et al., 2017
- Dinning, 2017

Stakeholder groups’ mismatch on employability skills
- Collet et al., 2011
- Tan et al., 2017
- National Research Council 2012

Graduate skills needed
- Singh et al., 2013
- Chevone and Rao, 2018
- World Economic Forum, 2016
- Skue and Napier, 2000
- Tan et al., 2017
- Dinning, 2017
- Malhi, 2009

Lecturers’ role
- Malhi, 2009
- Waters et al., 2015
- Sharma and Pandher, 2018

Research Aim

Employability

- Wickramasinghe and Perrera, 2010
- Lowden et al., 2011
- Yorke and Knight, 2006
- Rothwell and Arnold 2007
- De Vos et al., 2011
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Employability

Figure 1: Literature Map

Employability

The term ‘employability’ refers to individuals who can gain employment according to their educational standards (Dearing 1997, cited in Wickramasinghe and Perrera 2010). However, this is by no means the only definition of this term in the literature reviewed. Lowden et al. (2011) refer to employability as having characteristics, skills, and attitudes with strong potential to market them to employers. Employers expect graduates to have both technical and disciplined skills acquired from their degrees. In addition, graduates must have a number of other broader skills such as, problem solving, critical thinking and leadership skills, to enable them to find the right employment, be proactive, progress in their work and thus ensure the success of their companies and organisations. Furthermore, a graduate equipped with the three skills mentioned above are an asset as they progress into managerial positions within the company. Similarly, Yorke and Knight (2006) define employability as the ability for graduates to be employable and be successful in their job at graduate level positions. They also claim that employability goes way beyond graduates having only the necessary ‘core’ and ‘key’ skills, while still emphasising that graduates are required to have both academic and practical intelligence. They suggest that the co- and extra-curricular achievements contribute to graduate employability as these reveal other essential skills. Meanwhile, Rothwell and Arnold (2007) provide a more complex definition of employability. They argue that this is based on different interrelated factors, such as the students’ academic performance, confidence in their own abilities, personal ambition, reputation of university where the student graduated, and awareness of opportunities. A sharp self-confident graduate who is keen to work and leaps on opportunities to improve has the right characteristics to be
employable. On the other hand, De Vos et al. (2011) define employability according to the outcome factor of the employee. The more the employees use their competencies at work, the more fulfilling the work experience becomes.

Skills Needed

Graduate employability has seen important changes over the past years (Singh et al. 2013). In the past, candidates were chosen primarily for their academic qualifications, work experience and/or their technical knowledge, whereas nowadays, more focus is put on soft skills and generic skills. Employers expect undergraduate and graduate students to be equipped with such skills (Singh et al. 2013). Chhinzer and Russo (2018) emphasise that while soft skills, problem solving, professional maturity, and continuous learning, converge with employers’ perceptions, employers also considered other crucial factors, like generic skills (such as attention to detail and time management) as well as professional attitudes and behaviours. Listing the skills in order of importance, professional maturity is the leading skill that employers assess. Individuals who demonstrate high quality work, show initiative and interest, benefit from their employer’s positive perception of them, irrespective of the level of education possessed by the individual. Furthermore, soft skills and problem solving skills are the next, equally important, categories. Soft skills include interpersonal skills, communication skills and verbal communication skills. Results show that employers combine these two categories together when assessing their workers. The third skill that employers expect from employees is continuous learning. Employees, especially new graduates, who are continuous learners, inevitably show interest to improve, are responsible and they are the front liners in the company’s success. The generic skills highlighted above, if possessed by employees assure the employers that the individuals are reliable and responsible in the workplace. From the above studies, one can note the shift highlighted earlier by Singh et al., (2013) where generic and soft skills are preferred over technical skills and academic expertise. Moreover, these requirements go hand in hand with The World Economic Forum (2016), which reports ten crucial skills that every employee must possess in order to flourish in the fourth Industrial Revolution. These skills are complex problem solving, critical thinking, creativity, people management, coordinating with others, emotional intelligence, judgement and decision making, service orientation, negotiation, and cognitive flexibility. Similar skills like creativity and innovation, critical thinking, problem solving, communication, and collaboration are also reported in the P21 Framework for 21st Century Learning (2016). It is evident that to date, there is a commonality between the studies mentioned regarding employees’ skills expected by the industry, and employers. From the above literature, employers are not only seeking workers who are academically proficient, but who also possess higher-order thinking skills, such as reasoning, creative thinking, critical thinking and problem solving. Workers who are critical thinkers, problem solvers and possess generic skills are the most sought after. Additionally, personal qualities, such as responsibility, self-confidence, self-control, social skills, honesty, integrity, adaptability and flexibility, team spirit, punctuality and efficiency, self-direction, positive work attitude, groomed appearance, cooperation, self-motivation, and self-management are also considered an asset (Shafie and Nayan 2010). Besides the skills discussed above, Rosenberg et al. (2012) articulated the importance of leadership skills. Their study revealed that graduates were so properly trained in this skill from their faculty that once they were employed and offered additional training from the industry, they needed less training in this particular skill. In addition, workers who possess leadership skills work autonomously, have professional maturity and are successful in obtaining and maintaining their employment.
From the engineering industry, one expects a high demand of hard technical knowledgeable employees. However, Tan et al. (2017) observe that engineering employers' expectations and the requirements of the Malaysian Engineering Accreditation Council (EAC), Board of Engineers Malaysia (BEM) agree that employees should have a balance of both technical and soft skills in order to be fully employable. In their study, Tan et al. (2017) also reveal the academics' or educators', perspective. While the industry expects graduates to be work-ready, educators acknowledge that employers prefer individuals who are eager to learn and work independently, since they understand that what students are taught in universities differs from the real demand expected by the industry. In addition, Singh et al. (2013) point out that the gap between the industry and educators is so wide that while employers expect graduates with integrity and professional ethics (self-confidence, honesty, integrity), educators in higher education institutions focus mainly on problem solving, critical thinking, and communication skills. Likewise, in the sports industry, Dinning (2017) illustrates that sports employers prefer graduates with a sport mindset linked to behaviour and attributes prior to the necessary skills required. His study entails a very helpful model of what sports employers in the UK expected from graduates. His model places mindset as an integral expectation of sports employers preferring individuals who are primarily driven by a passion for sports, wanting to be the best, take ownership of work and show a positive outlook. This is then followed by selecting candidates for their core skills such as: leadership, self-management, adaptability and creativity. Personal qualities of listening, self-awareness, initiative, emotional intelligence and finally, the model shows the on-the-job process skills such as planning, prioritising and working autonomously.

Why are these generic and soft skills more important than hard technical knowledge? This is an ongoing debate. Malhi (2009) observes that a study conducted by the Stanford Research Institute and Carnegie Melon Foundation involving Fortune 500 CEOs revealed that 75% of getting and retaining a job depended on the individual's generic/soft skills, while hard technical skills accounted for only 25%. Generic and soft skills are not job-specific but cut horizontally across all types of industries and vertically across all job levels (Defining Generic Skills 2003). An individual in possession of these skills is greatly advantaged as they can succeed in any type of industry and at any level of employment. Furthermore, Malhi (2009) emphasises that these vital skills should not be underestimated by higher education institutions, policy makers, and providers of knowledge (educators). To conclude, as part of the stakeholders' group, employers rely highly on higher education institutions and educators in equipping students with the appropriate skills.

Expectations from Higher Education Institutes and Universities

There is ample literature that identifies the skills needed from graduates and undergraduates. However, there are also studies that propose suggestions to higher education institutions (HEI) in order to address issues regarding skills required. Singh et al. (2013) claims that employers expected universities to acknowledge this mismatch between universities/HEI and the industries in the required generic skills. They also suggest that universities and HEI must devise an all-in-one curriculum, where they address both technical knowledge and generic skills. Similar criticism is placed upon higher education institutions since they put so much emphasis on delivering the technical knowledge, that they fail to address other equally important skills, such as leadership, interpersonal skills, and communication (Winstead et al. 2011). Harvey (2000) expects higher institutions to respond to this matter and asserts that the worst thing to do
is to devalue education in favour of training. He points out that the primary role of universities/HEI is to promote lifelong learning among students by instilling reflective and critical thinking, while empowering their capabilities in skills, knowledge, attitudes, and abilities. However, Cox and King (2006) and Hegarty and Johnston (2008) suggest that the most effective way to address this problem is to directly involve employers in the formulation of curriculums and assessment courses. McMurrey et al. (2016) stress the need for professional higher education institutions to expose students to workplaces. A clear result extracted from interviews with employers is that work experience is a key resource in developing the soft skills. Moreover, to be effective and to ensure future secure employability, work experience should be related to one's field of study as this proves vital to the individual's future career. Furthermore, work experience increases confidence in students, improves their connections in the labour market, and helps them develop into all-rounded individuals. On the other hand, McMurrey et al. (2016) points out that employers oblige universities to manage and address students' expectations because graduates expect too-much-too-soon from their jobs. To tackle this issue, universities/HEI should explain salaries to graduates/undergraduates and stress the fact that to earn more, individuals have to work their way up the organisation. Different studies highlight the need for continuous communication between the industry (employers) and educational institutions, including educators. Rao (2014) provides a suggestion in his study; he introduces the fifth force in the stakeholders group, known as the training and placement officer (TPO), whose function it is to effectively link faculties, educators, the industry, and students, and aid coordination among them. The TPO's role is to design a soft skills curriculum and provide soft skills training to faculties/educators, who in turn provide soft skills training to students. This ensures that students are in a more comfortable and confident position to take on job interviews. In addition, the TPO must arrange regular meetings between the industry and institutes, and invite employers to share their experiences with graduates/undergraduates. This creates awareness among students about industrial expectations.

**Educators' Role**

Although there is a lack of empirical research that directly outlines the industry's expectations from educators (mainly vocational ones), one can still refer to literature in order to get an idea of what is expected from educators. Rao (2016) states that, “Teaching is the profession that teaches all of the other professions.”. He also argues that in a world continuously getting smarter, especially in smart jobs, smart technology and smart devices, smart educators are required. To be smart, he stresses, motivation is important. In addition, Rao cites and adapts McGregor's (1960) managerial model Theory X and Theory Y in the context of higher education. In his study, Rao (2016) devises a model and bases the style of teaching on two perspectives, namely teacher relationship with students, and teacher relationship with peers and administration. *Figure 2* illustrates different educators' teaching styles and contrast them with each other.
From the tested hypothesis, Rao (2016) concludes that educators with a Theory Y teaching style take active part in professional social activities as well as consultations with industries, and spend adequate time conducting research. Waters et al. (2015) highlight the importance of scholarly activities amongst educators. Vocational educators who were active in research and made use of problem-based learning (PBL), “brought industry into the classroom” (Waters et al. 2015). Instead of teaching and guiding students to master a body of knowledge, these educators took all the learning gained from their studies and tailored it to the specific class of students under their care. In addition, research ignited curiosity in educators, who in turn devised real problems for the students to make learning as effectively real as possible. By using research, educators prepare students to become critical thinkers and to be more tuned to the uncertainty of problems in the workplace.

The above-mentioned literature exposed the importance of employability versus employment. Different studies discussed, revealed the importance of soft, generic, and technical skills expected by employers from graduates and undergraduate students in present and future years. It also suggested studies of links among the stakeholders’ group, mainly industry to students, and industry to educational institutions. The literature also brought out suggestions and ideas on how higher educational institutions should tackle the problem regarding these skills. Notably, however, there is a lack of research that shows the industry’s expectations from educators. This link is of utmost importance as educators, especially those teaching in professional higher education institutions, should know what is expected from them in order to guide and prepare students in their vocational journey.

**Research Methodology**

This section focuses on the epistemology and philosophy used to carry out this qualitative educational research. Due to the nature of the research, the researcher distanced himself from post-positivist quantitative and pragmatic mixed methods methodologies, and adopted a constructivist paradigm (Charmaz 2006; Strauss and Corbin 1998). In fact, this study opted for a qualitative constructivist-grounded theory methodology. Moving away from Glacier’s epistemological underpinnings, grounded theory is, “The notion of generating new theory from data, as opposed to testing existing theory.” (Birks and Mills 2015). Narrative research, phenomenological research, and ethnography could
not suffice as from a constructivist point of view, this study attempted to build new knowledge and a preliminary model from existing knowledge, placing great emphasis on the researcher’s knowledge and background. Grounded theory uses an inductive process since it builds theory up from the data itself (Birks and Mills 2015) and elicits more research insights than quantitative data. In addition, Birks and Mills (2015) also argue that grounded theory does not arise automatically but is rather generated and developed by the researcher through grounded theory methods. In this study, the researcher opted for interviews as the main tool for data collection. Semi-structured interviews with open-ended questions provided rich and deep information ensuring quality in the data. The researcher’s background and experience as well as the questions asked eased the flow of each interview, thereby ensuring that the data gathered was valid and to the point. Since interviews were the main instrument for data collection and ethical issues were taken into consideration throughout the process, the researcher established a professional mutualistic relationship, ensuring the interplay and the give-and-take roles throughout the interviews (Birks and Mills 2015). In the initial phases of the study and before any interviews were undertaken, the researcher took note of his thoughts, feelings, insights, and assumptions. This ensured credibility and transparent accountability. In this study, convenience and purposeful sampling was used, where face-to-face interviews with four participants were carried out. The first and unique convenient sample was a mathematics/science educator, while the other three were purposeful samples. These included two aviation industry representatives and one professional from the curriculum institute. Each interview with the participant was audio recorded for proof and for later transcription once the interview was concluded. All the participants were familiar with the research topic and all contributed and shared their rich insights throughout the interviews. The information gathered from the in-depth interviews led to the formation of a pedagogical model, where the industry expectations from educators could be addressed through this model. Moreover, secondary data, such as syllabi, were reviewed in order to fulfil the purpose of the research.

Figure 3: Research Project Plan used for this research
For data analysis, Creswell and Creswell (2018) recommend qualitative computer software programmes since hand coding is laborious and time-consuming. For data analysis, this study used MAXQDA software programme. Figure 3 shows the Research Project Plan used in this study. Essentially, grounded theory method of concurrent data generation and analysis was applied, where each interview was transcribed and coded before more interviews were undertaken. Initial or open coding was the method used to fracture the data and analyse each line while transcribing. Once this was done for the first interview, the process was repeated for the rest of the interviews, shifting from open to selective coding. In this phase, similar codes were elevated as categories. The constant comparative analysis method allowed the researcher to compare interview with interviews, incident with incidents, and codes to codes. Categories were meanwhile compared to categories and concepts during intermediate coding. This repetition and comparison ensured validity in the interviews and quality throughout the research. Grounded theory entails a certain level of rigour to ensure quality. This is achieved by continuously implementing research expertise, methodological congruence, and procedural precision. After each coded and analysed interview, the researcher wrote reflective memos in order to raise his theoretical sensitivity while simultaneously developing new insights for further actions. At the end of the analysis and after incorporating all the memos, the researcher came up with a preliminary model to explain the outcomes of the research. Due to the limited number of interviews, theoretical saturation was not reached in this research. Creswell and Creswell (2018) define this saturation as that point in research when gathering fresh data no longer sparks new insights.

Presentation and Analysis of Findings

Through grounded theory methodology as an inductive approach, the researcher sought to extract theory from the data collected. The four in-depth interviews were transcribed and coded using MAXQDA software. For each interview, the researcher used a vital tool: Constant comparative analysis. The codes, concepts, and categories were compared from one interview to the other. After each interview, memos were written for each category, and sub-categories so as to elicit their properties and dimensions (Charmaz 2006). Careful attention was given when coding the interviews to make sure that the researcher's professional bias did not interfere with the participants' insights. This ensured objectivity from the researcher's part and assurance that the industry's expectations from educators through the stakeholders' group were understood. The codes were put under categories, which were then further organised using the conditional and consequential matrix (Strauss and Corbin 1998). The conditional matrix is made up of three main categories, which are the contextual conditions, actions/reactions, and consequences and outcomes. Earlier in the literature, the gap and mismatch among the stakeholders' group that this study aims to understand were pointed out. Thus, it was necessary that the emerging constructs in the conditional matrix portrayed the conditions, actions, and consequences of the stakeholders’ group, putting emphasis on the aviation industry and educators. Figure 4 shows the interplay of these emerging constructs from the analysis process, where the contextual conditions reveal the expectations of the aviation industry from educators, together with the conditions acting in the background from higher education in Malta and the educators themselves. The actions/reactions section gives insight into actions suggested or being done to address these expectations. Once again, the holistic actions from all members of the stakeholders’ group were studied, which revealed actions from the industry, duties from MCAST as the source of employees in the aviation industry, and the actions needed for the educator to adapt to change
and address the expectations. Finally, consequences and outcomes were categorised under the improved educator, benefits of the industry, and the new student/employee ready to be employed. Furthermore, Figure 5 shows the main categories divided into sub-categories in the conditional matrix, leading to preliminary, emergent theory. From the contextual conditions, the industry’s expectations were further sub-categorised into recruiting expectations. This revealed a broader picture of what the industry expects from employees already employed in the aviation industry as well as the expectations of newly-employed MCAST students and alumni. In addition, the issue of staff members was highlighted by both industry representatives, who agreed that the number of staff is a constant concern.; they both

Figure 4: The Conditional Matrix showing the interplay of emerging constructs
Figure 5: The Conditional Matrix showing the findings of this study
stressed that teamwork, is highly important to secure passengers’ safety in this industry. Both higher education and educators contribute considerably to the aviation industry in Malta. Indeed, higher education in Malta plays a very important role in this industry and in the academic and vocational sectors. During all four interviews, the curriculum regarding vocational education, automatically emerged and was split into three vital categories: The content itself, the hidden curriculum, and the students’ realities – which all require ample consideration. Finally, and most importantly, there is the educator with their own pedagogy, experience, classroom experience, and background. Moving on in the conditional matrix, through the constant comparison of the four interviews, the continuous link between actions and consequences emerged. Actions from the industry highlighted by both participants included the need for more communication with MCAST, a more selective recruiting process, offering further training to their employees, and, most importantly, the need to value the employee more. However, the most significant and intriguing actions or duties that stood out were those outlined by MCAST and the educator. MCAST is proposing an industry advisory board to facilitate communication with the industry, through which the industry can offer suggestions. Furthermore, meetings, discussions, adaptations, and reviews of the syllabi ensure that these are student-oriented. MCAST is also exposing the students to the aviation industry through the apprenticeship period. From the analysis process, it was highly evident that the educator must embrace an experiential learning-based pedagogy, rather than the old chalk-and-talk, monotonous one. The right attitude, as well as ongoing changes for future jobs and courses were two important concepts underscored by the four participants. Linked directly to these actions, are their consequences. Educators who implement an experiential learning pedagogy grow pedagogically by improving their knowledge and being able to prepare the student better, ultimately resulting in higher satisfaction by the outcome of their job. The first participant, a mathematics/science educator, stated,

“My parameter of success for this aspect is how many students get assimilated to the industry.”

Failing to change pedagogically, the educator only offers a disservice to the student. On the other hand, an improved educator who embraces this pedagogy is beneficial to students, who reveal their talents, become responsible, improve in decision and problem-solving skills, become critical thinkers, and ultimately become highly valued employees by the industry. Apart from being employable, students better understand the need to learn, the relevance of the knowledge learnt, and the application of it. It is due to the conditional matrix and the constant comparison of categories that preliminary theory started to emerge. Consequently, a conceptual model was compiled. Figure 6 shows the process needed to address the industry's expectations from an educator's perspective. The educator – adopting an experiential learning pedagogy by being equipped with the right attitude, being exposed to the industry, and being an empowering influence to the students –
Figure 6: The Conceptual Model

helps the students to acquire a vast variety of soft skills and transversal skills. The ideal employee is formulated if the skills experienced are coupled with correct training either through apprenticeship training with the industry or any other training offered by the industry. The model in itself entails a series of actions and consequences presented previously in the conditional matrix. Whatever educators do in the classroom or in the students' learning environment, impacts their students. Therefore, educators must keep in mind that they are role models. Setting an example in the learning environment assists students to become more responsible, a skill that was frequently highlighted by the second industry representative. Offering a safe environment to students helps them to reveal their talents and master their interpersonal skills, thereby honing their communication and teamwork skills. Implementing hands-on tasks, posing questions, and contextualising material related to aviation helps the students to become critical thinkers. Consequently, exposing the educator to the aviation industry facilitates contextualisation and application of knowledge. The students benefit more because knowledge is presented to them realistically. Additionally, being exposed to the industry makes the educator more knowledgeable and adaptable to the aviation industry's ongoing changes. Practice-based assignments consolidate critical thinking and responsibility. They also aid students to further understand the knowledge learnt by being able to see its relevance and understand why they need it. Furthermore, the educator should empower the students. Entrusting students with classroom management, allowing them a measure of authority during the lessons, and negotiating with them solutions to problems, helps them to become responsible and active decision-makers. Ideally, this change in pedagogy should be adopted ad infinitum; this is the reason why an educator should also be a lifelong learner, enabling them to adapt to ongoing changes. Lifelong learning should ideally be achieved through research and experience in the industry as this helps the educator to improve both academically and practically. This model in itself is very practical. The theoretical presentation of it reveals the most adequate and holistic approach that should be adopted if the ideal educator is preparing the ideal students to be valued employees. However, educators that practise only a few of the mentioned actions would still leave a positive impact on their students.
Industry Perspective

The two industry representatives both highlighted the importance of exposing educators to the industry. The first participant from the industry also suggested that critical topics related to aviation engines should be carried out in the company’s premises since this would help the students to understand the topic being covered better. This participant also offered to help implement this suggestion. Educators need to know how the academic knowledge they are delivering is going to impact the industry and how it will fit within the bigger picture. This would help students to be more technically prepared. They also highlighted some expectations that educators should address. In the recruitment process, this participant looks for honesty, integrity, and professional competence. They also mentioned effective teamwork, and having an adequate character and the right attitude: Professional competence can be improved through training offered by the company itself, and honesty and integrity should be nurtured from home and via the educators. Having good work ethic is fundamental to this company and according to the participant, their company cannot work with employees who delve into the minute details of their job description, and only follow what is included in their signed contract. Employees should show the right attitude and embrace the two-way, or give-and-take, relationship in this industry. Another expectation observed was that employees should be trainable; they need to appreciate the importance of developing professionally. In order to improve communication with employees, this participant claimed that every now and then, he checks up on each employee for any difficulties that need attention. In this way, the employee feels valued and taken care of. The participant strongly argued that due to competition among aviation companies, the personal touch is fundamental to the employee,

“I always believe, salaries you can match but the personal touch unless you invest [in] it, it cannot come.”

The second industry representative specified that to work in their company, qualifications are important since in aviation, a recognised qualification is a standard need. In fact, this company accepts new employees with CAT A or CAT B, depending on the job requirements. These qualifications fall under EASA, which is an international setup, whereas MCAST offers the structures course. Apart from qualifications, the company values attitude and responsibility shown at the workplace. If an interviewee has the right qualifications but is not strong on the soft skills, chances are that that this person will not be employed by the company. On the other hand, if an interviewee possesses the right soft skills, attitude, approach, commitment, and responsibility but is less strong qualifications-wise, the company will develop this weak point through training. In the field of educators, similarly to the other participant, this second industry representative strongly advised that educators should have some experience in the industry. They suggested that this must be included as part of their career development plan. Ideally, this would entail a week of hands-on experience or visits, so as to understand how the aviation industry works and its day-to-day duties. This would help educators understand the responsibilities required to work in this industry and aid their application of knowledge. If students have some queries during the apprenticeship period, the educator would then, be in a better position to help them if they are more familiar with the industry through the hands-on experience and exposure they gained. Furthermore, the role of the educator is to form the students’ character. At times, the second participant’s company witnessed circumstances where employees do not manage to balance work, leisure, and studying. The educators must appreciate and impart the importance of responsibility while working for a company in
the aviation industry. New employees are constantly provided with adequate support to help them improve and become responsible. However, the participant stressed that preferably, this culture of responsibility should be curated by educators and MCAST. The role of the educator is particularly important in this matter.

Educators’ Duties

As mentioned earlier on, the other two participants were a mathematics/science educator and a curriculum professional. Fortunately, the curriculum professional had ample experience in teaching so the insights shared were both from an educators’ background and from the perspective of curriculum formation. Both participants shared common insights into how MCAST educators are different to educators in other higher education institutions. Being an MCAST educator requires living the MCAST vision. Students who choose MCAST do so because they expect a different academic experience to what they experienced in compulsory education. Therefore, MCAST educators must change their pedagogy and adapt to the new system by focussing on experiential learning, exposing themselves and their students to real-life cases, clearly showing the relevance of the knowledge taught within an aviation context and giving students a voice, together with opportunities to start solving problems. If MCAST educators do not understand this, they are doing a disservice to their students. What emerges from the feedback that the industry has given to MCAST is that although students are prepared technically, they still do not meet the employers’ expectations in their communication skills, teamwork, problem-solving, and critical thinking. The industry expects employees to be totally independent and autonomous while being able to manage a line of workers under their care. Thus, the skills of problem-solving and critical thinking are fundamental as unplanned situations and problems may arise. The employee should be able to tackle and solve these problems. How are educators going to address these expectations? It is important for educators to keep in mind that whatever they do in the learning setting affects their students. Therefore, an educator that experiments to solve queries arising from the classroom context helps the students to experience and acquire the skill of problem-solving. Practising in the learning environment sends the message that it is acceptable to make mistakes as it is part of the learning process. An educator should accept new challenges as this helps them to grow professionally. The third participant stated,

“I learnt a lot professionally when I was faced with a challenge, I did not know how to solve it, I risked and made mistakes during the process but learned from them.”

This attitude inspires students to accept challenges and become problem-solvers. In so doing, students are simultaneously trained to embrace the right attitude when dealing with queries and challenges. Educators may find it difficult to experiment in the classroom due to fear of losing control of the class. That is why an educator should negotiate classroom control with the students since this instils in them the skill of responsibility. This concept of negotiating with students also empowers them, which enables them to reveal their talents and skills in the classroom and, later on, at their workplace. This is not easy for present educators because by and large, most were taught to learn by sitting still, being quiet and listening carefully. Educators have to break free from this old pedagogy not only because the industry expects them to do so, but also because of the vocational context. In this context, students need hands-on experience even in the most theoretical subjects. Furthermore, these participants claim that educators should
prioritise the contextualisation of knowledge rather than focus on delivering the body of knowledge itself. The educator stated,

“You can go in abstract and theoretical in mathematics but once you have grounded and shown the students why that knowledge is necessary for the required skills demanded by the industry.”

Strategies that help to contextualise topics include using scenarios, posing questions, and group work. This is facilitated if the educator volunteers to be exposed to the industry. Educators who are interested in acquiring experience in the industry are given the go ahead by MCAST. Moreover, educators should liaise with each other, especially key skills and vocational educators. Vocational (aviation) educators are inclined to prepare the student technically since the majority have a background in the industry. Key skills educators should observe workshop sessions, obtain copies of notes used with the vocational educator, and plan lessons that consolidate what students cover in the vocational lessons. For instance, solving problems such as faults in engines and failures of aircraft structures would be discussed during the lessons, as well as their implications, including company costs. This would trigger critical thinking. Furthermore, these minute details would help students to appreciate the aviation industry and instil that sense of duty towards the company or industry. Finally, an educator must be a lifelong learner. The aviation industry is constantly developing and changing. In fact, a course that starts now could be outdated within five years. An educator should update their lessons through research, scholarly activities (Waters et al. 2015), and exposure to the industry. In this way, relevance to the vocational area is maintained and students are adequately prepared.

Recommendations and Conclusions

This section aims to act as the foundation for future studies with similar research aims. The model presented in this study does not intend to reduce the merits of educators at MCAST. Conversely, the purpose of this research is to offer a guideline and help educators to grow pedagogically. Furthermore, the model presented in this research requires further study in order to expand it and elicit more theory on how an educator should address the industry’s expectations. In addition, this study is exclusively linked to the aviation industry; it would be interesting to test this model’s applicability to various other industries. By transferring this model to other industries, the common employability skills that need further addressing from educators are extracted. Another direction to follow, would be to test quantitatively the relationship between the educator and the student when an educator employs an experiential pedagogy. It would be highly helpful to outline which pedagogical practice highlighted in the model works best with the students to hone the required employability skills. It is also recommended that prior to testing this model, further research is carried out to address the skills expected from other forms of industries. It would be highly interesting to compare the models derived as this would enable researchers to project a clearer picture of how to address these expectations. It is also recommended to carry out a similar research in the context of other forms of educational institutions, such as secondary schools including state, church, and independent schools, rather than a professional higher educational institution. Discovering these employability skills from the perspective of different educational institutions would help tackle the mismatch developed among the stakeholders’ group
on employability skills. This would lead to further studies with the aim of improving pedagogies among educators in the educational system.

**Limitations to the study**

This study adopted a grounded theory approach based on the analysis of four qualitative in-depth interviews. Although richness was ensured in each interview, sampling in grounded theory is not a representative sample, which makes the transfer of conclusions more challenging. The researcher experiences discovery and explains a process abducted in the data itself, rather than verification, so generalisations cannot be made. In addition, this study depended on a small number of interviewers, which is a limitation in itself. Although theory was generated and a preliminary model compiled, theoretical saturation could not be reached since more data from a larger number of interviews would be required. Furthermore, only the participants can legitimately judge the credibility of results. However, grounded theory has an advantage over other approaches, since data is recorded and later transcribed. By following procedural precision to ensure quality in grounded theory, the researcher ensured that this study is credible. Nonetheless, taking these limitations into consideration, the model presented shows an interesting process of how an educator can address the industry expectations.

**Concluding comments**

The aviation industry perceives MCAST as the source of its employees. Being an engineer or a technician at Level 4, the educator remains the bridge that connects industry with MCAST. The industry in itself offers a continuous challenge since it constantly progresses. Additionally, as confirmed by the two aviation representatives interviewed, the number of employees needed is always rising. The educators, supported by MCAST, need to adapt to these changes and begin to seriously address the expectations of the industry. The gap amongst the stakeholders' group regarding employability skills needs to be reduced. Educators should seek to present empowered students with the right attitude, who are willing to accept challenges, and be prepared to be trained from the industry to help them grow professionally. Preparing and presenting the ideal employees benefits the stakeholders' group. The industry would have acquired valued, responsible employees while the educators would have an unmeasurable, lifetime satisfaction by seeing their students succeeding and progressing in their professional life.

**References**


National Centre for Vocational Education Research. 2003. *Defining generic skills: At a


