Industry expectations from educators in a professional higher education – A STEM Perspective

Stephen Gauci | Dr R. Aquilina | Learning Support Unit

MCAST
Malta College of Arts, Science & Technology

Problem Statement

The research theme is mainly to study the industrial expectations from educators. MCAST is a professional institution and a gateway to the industry (MG2i), thus lecturers need to apprehend what the industry is expecting from them in order to prepare the students to be employable.

Background

- Ongoing educational debates tend to focus on graduates and employability skills stressing the lack of understanding amongst students, lecturers and industrial expectations on employability skills (Collet et al., 2015).

- Ample literature mainly from Dinning, 2017; Lowden et al., 2011; Shafie and Nayan, 2010 directed attention and focused mainly on graduates and employability skills. However, researchers like Collet al., 2015 and Tan et al 2017 point out the lack of understanding amongst the stakeholder's group on the skills needed.

- It is in recent years that important literature (Chinnzer and Russo, 2018; Dinning, 2017; Lowden et al., 2011; Shafie and Nayan, 2010; Singh et al., 2013; and Tan et al., 2017) explored the skills required by graduates to satisfy the employers need from an employer's perspective.

- From the engineering industry, one expects a high demand of hard technical knowledgeable employees. However, Tan et al. (2017) discovered that engineering employers' expectations and the requirements of the Malaysian Engineering Accreditation Council (EAC)/Board of Engineers Malaysia (BEM) agreed that employees should have a balance of both technical and soft skills in order to be fully employable.

Research Approach

- This study opts for a qualitative Constructivist grounded theory methodology.

- Grounded theory uses an inductive process as it builds theory up from the data itself (Birks and Mills, 2015).

- At the end of the analysis, the researcher can come up with a draft model to explain the outcomes in relation to the industry expectations from lecturers.
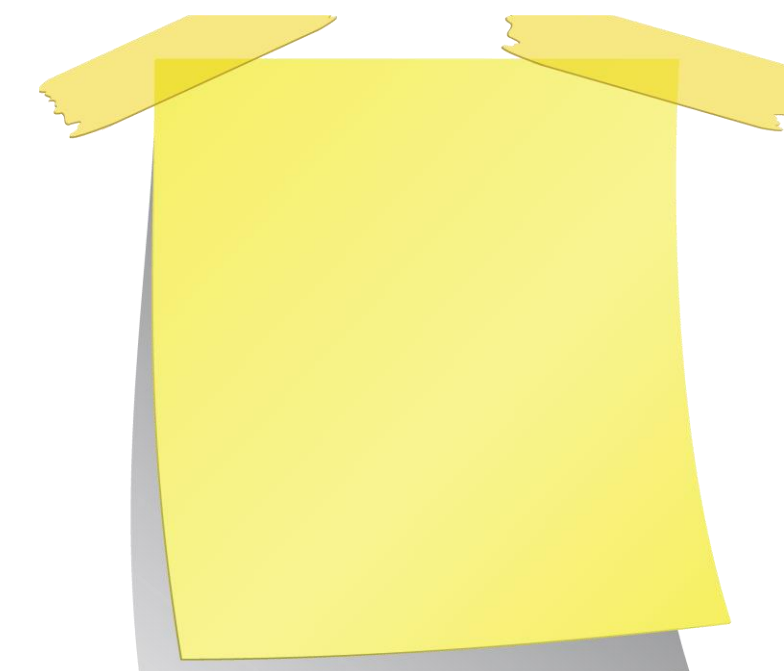
Methods used
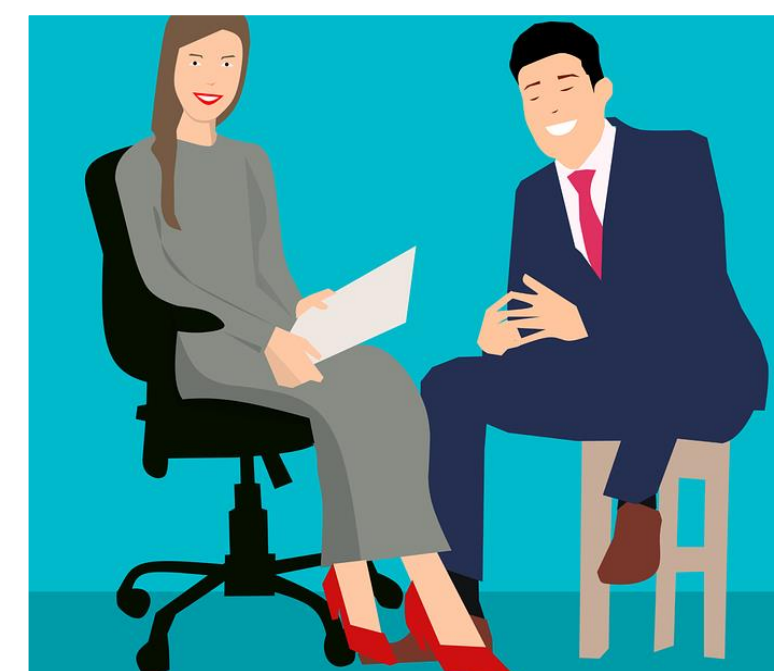
Interviews	Memos	MAXQDA software
In this study, convenience and purposeful sampling is used where face to face interviews with four or five participants are planned to be undertaken.	Researcher undergoes writing reflexive memos as this raises researcher's theoretical sensitivity while simultaneously develop new insights for further actions.	For data analysis, this study plans to use MAXQDA software programme. The software will aid the researcher to analyse and code each interview.

Research Question

Central Research Question

RQ - What are the factors that the industry/employers are expecting from lecturers in order to guide students to satisfy industrial needs?

Possible sub questions depending on the participants

SQ1 - What makes an MCAST lecturer different from other non-vocational higher educational institutions?

SQ2 - How are the lecturers supposed to know what is expected from the industry in order to better prepare future graduates?

Objectives

- First objective is to emerge from the research how vocational, non-vocational educators and institutes are guiding the students and preparing them to be industry ready and employable in future jobs.

- Another objective of the research is aimed to propose suggestions and recommendations for lecturers and institutes where possible in order to better meet the industry requirements.

- Combining the first two objectives together, the researcher should be able to come up with a preliminary draft model to better explain research outcome.

References

- Birks, M. and Mills, J. (2015). *Grounded Theory: A practical guide*. (2nd edn): Sage Publications.

- Collet, C., Hine, D. and Plessis, K. (2015). Employability skills: perspectives from a knowledge-intensive industry. *Education + Training*. Vol. 57, No: 5, pp. 532-559.

- McMurray, S., Dutton, M., McQuaid, R. and Richard, A. (2016). Employer demands from business graduates. *Education + Training*. Vol. 58. No: 1, pp.112-132.

- Rothwell, A. and Arnold, J. (2007). Self-perceived employability: development and validation of a scale. *Personnel Review*, Vol. 36. No: 1, pp 23–41.

- Waters, M., Simon, L., Simons, M., Davids, J. and Harreveld, B. (2015). A case for scholarly activity in vocational education in Australia. *Higher Education, Skills and Work-Based Learning*. Vol. 5. No: 1, pp.14-31.

- World Economic Forum. (2016). *The 10 skills you need to thrive in the Fourth Industrial Revolution*. Available at: https://www.weforum.org/agenda/2016/01/the-10-skills-you-need-to-thrive-in-the-fourth-industrial-revolution/ [Accessed 27th December 2018]