

Critical thinking across disciplines – Mario Aquilina

We must foster innovative skills in students from an early age

Opinion

Comment

Education

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A few days ago, in an open letter, a group of 40 ‘scientists, academics and employers’ argued that STEM subjects (science, technology, engineering and mathematics) [should have a more central role in our education system](#). The letter echoes familiar concerns about education in Malta, focusing on how students are not being prepared properly for the job market.

“Students and employees alike,” the authors say, “frequently require upskilling to deal with today’s dynamic and challenging reality.” One of the solutions they propose is students acquiring STEM thinking methods as from an early age.

I was particularly intrigued by the fact that these scholars had identified STEM thinking as a potential antidote to a “current culture” that “rewards rote learning and leads to a workforce that is ill-equipped to deal with problems that require critical and innovative thinking”. I share their aspiration to foster critical and innovative skills in our students as from an early age.

Despite being a humanities scholar, I firmly believe in the importance of scientific thinking for all. Think, for example, of how the spread of anti-vaccination myths,

such as microchips injected along with the vaccine, can spread like wildfire due to deficient scientific knowledge.

I often think of the ways in which a greater appreciation of the subjects I research and teach – literature and language – could help in the strengthening of critical and creative thought. Instead of problem-solving in computer coding, for example, I think of how the close reading of a poem, the analysis of the rhetorical strategies in a speech or a discussion of the historical context of a dystopian novel could allow students to learn how to analyse, question, interpret and evaluate other people's views and their life in the world around them. Similar claims about the value of their subjects in fostering critical thinking are made by philosophers, historians and other humanities scholars.

In other words, we are identifying similar challenges but proposing different solutions. Perhaps, it seems to me, the real question is not which subjects should be prioritised to foster critical thinking but how to carry out more fundamental and radical changes.

One of the solutions proposed in the letter, which I fully agree with, is continuing to move away from teaching and assessment that gives too much importance to rote learning and the reproduction of knowledge towards more intellectually stimulating and engaging methods that help students become more independent thinkers.

“ *We need critical thinkers who can disagree, resist and question the powers that be*

- Mario Aquilina

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A deeper issue that should be critiqued, however, is the rationale for the changes. Is education exclusively or primarily concerned with the production of work-ready students equipped with specific skills, whatever they might be? Or should we aspire to an education system that nurtures individuals who can be citizens, rather than just employees, equipped with critical and creative skills that allow them to actively, fruitfully and empathically participate in all spheres of their life, not only work, but also politics and social debate, for instance?

Do we only need more productive workers or also more discerning voters and savvier users of the social media?

Can we really provide space for critical thought if our sole aim is the production of work-ready students?

The wording of the general aims outlined in the 2012 National Curriculum Framework is a symptom of the current philosophy in education with business and work terminology dominating the document. The 10 aims highlight “working together”, fulfilling students’ “capacity” and “expectations” and “rationalising” programmes for efficiency.

The aims also include regarding “social justice and solidarity as key values” but proclamations like these sound tokenistic and superficial in the context of the overwhelming calls for education based on quantifiable outcomes as well as a document that – without a hint of irony and not much nuance – “request[s] teachers to regard children as Malta’s future workforce”.

If we want critical thinkers, we have to think of young students less exclusively as future workers and more as individual citizens living in a globalised world.

Critical thinkers are not only those who, on entering the job market, have the skills to be immediately productive and efficient. Work-oriented skills, whatever they are, are important but not enough, especially within the context of a world in which the skills required change continuously.

We need critical thinkers who can also disagree, resist and question the powers that be and who can visualise and bring about positive changes in all spheres of life, including the job market and the education system itself.

Helping in the development of true critical thinkers, therefore, is not just about prioritising STEM subjects or the humanities but committing ourselves to a significantly deeper transformation in the way we conceive, design and implement education in Malta.

Mario Aquilina, senior lecturer, Department of English