Table 15

The Impact of Universities on the 2030 Global Skills Crisis:

Using graduate degrees, executive education, and continued education to combat the global skills crisis

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SECTION (1) – PRESENTATION BY THE HOST

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a) WHAT HAVE WE LEARNT FROM THE MOST RECENT GLOBAL CRISIS – THE
COVID 19 PANDEMIC ?

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➢ **Before we discus the impact of universities on the global skills crisis, we
need to examine the lessons learnt from the most recent crisis: The
COVID 19 Pandemic. There were many lessons learnt and all were
significant, including:**

- *Anticipating a crisis before it happens* – We now know the real value of
  anticipating or predicting the next global crisis, its impact, the risks
  associated with it and most importantly, how to eliminate or mitigate
  such risks.
- *Reluctance to act* – fear of acting was a huge problem for everyone,
  including universities. The lesson learnt is to act now even if the action is
  good enough but not perfect. Inaction or delay in taking actions proved
  costly and the ability to act now, even if the action will not be perfect
  proved to be more reasonable.
- *The value of good problem solving* – The Pandemic demonstrated the
  real value of complex problem solving, understanding and using different
  techniques and systems of problem solving could not be understated.
  The need to underpin problem solving with data analytics, including
  descriptive, prescriptive and especially predictive analytics will enable us
  to have good system in place for the prediction of future crisis before
  they happen.
- *The value of research* – We came to appreciate the real value of
  academic research during the Pandemic, particularly in terms of saving
  lives and the huge economic costs associated with the Pandemic. It also
  explains why research is the second mission of the University. Research.
  Universities should be at the heart of the research system and
  environment and need all the support they can get (government or
  otherwise) to remain and strengthen themselves as research-intensive
  universities.

- ***Communication through a crisis*** – As the pandemic developed into a full fledged global crisis, we started to witness an "infodemic" – which was essentially a combination of malinformation, misinformation and disinformation, in certain instances named as "fake news". There was no separation between expert and non-expert opinions in the media. Academics who were invited on talk shows or news channels gave personal views on topics rather than expert opinions backed by facts and real knowledge. Such so-called experts were expressing their personal opinions and impressions on subjects that they were not an expert in, and simply because they were academics they were keeping knowledge at the level of the pseudo-science.

- ***The social and economic costs of a global crisis*** – The costs of the Pandemic exceeded all expectations in terms of millions of lives lost and an economic cost exceeding $10 Trillion. Such huge losses were a result of no response, delayed response or poor response to the crisis.

➢ **WE THEREFORE NEED TO ANTICIPATE THE NEXT GLOBAL CRISIS, UNDERSTAND IT WELL AND PLAN AN EARLY RESPONSE THAT COULD MITIGATE ALL THE RISKS. WE TURN TO THE THOUGHT LEADERSHIP FOR GUIDANCE ON THE NEXT GLOBAL CRISIS.**

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b) WHAT IS THE NEXT GLOBAL CRISIS?

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➢ **Starting from enhancing our ability to anticipate and prepare a response to any global crisis before it actually takes place, we now turn our attention to the next global crisis. What is it? Where will it happen? Why is it happening? What is its impact? And finally How to respond to it?**

- According to a number of recently published reports by Korn Ferry, PWC, Accenture, IBM, Ernst and Young, The World Economic Forum among many other thought leaders, the next global crisis is the Global Skills Gap, resulting from the gap between the skills required for the Old Economy and the New Economy.
- It is estimated that by 2030, 1 billion people will need some form of skilling, reskilling or up-skilling if we want to avoid losses exceeding $60 trillion in global GDP.
- The scale and magnitude of such a crisis exceeds the combined impact of the 2008 financial crisis, 9-11 and the most recent COVID-19 pandemic.
- In addition to the anticipated economic losses, the crisis will cause multiple socio-political challenges.
- The main causes of the crisis include globalisation and its impact on the competitiveness of employment, demographic changes causing the entrance and exit of generations looking to get or keep employment, digital transformation fuelling remote work and technological unemployment, automated urbanisation, inequality and the gradual move on-demand economy where project based work replaces permanent employment.
- Taken together, all these factors work in confluence to increase the demand for skilling, reskilling and up-skilling to keep as well as to get jobs and makes us focus on ensuring that we train 1 billion people with the right skills by 2030.

➢ **THE NEXT GLOBAL CRISIS IS A GLOBAL SKILLS GAP THAT WILL TAKE PLACE IN 2030 AND WILL AFFECT 1 BILLION PEOPLE WITH POTENTIAL LOSSES EXCEEDING $60 TRILLION, LEADING US TO THE QUESTION OF WHAT ARE THOSE SKILLS WE NEED TO ACQUIRE BY 2030.**

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c) WHAT ARE THE SKILLS NEEDED TO RESPOND TO THE SKILLS GAP CRISIS?

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> **IN A RAPIDLY CHANGING ECONOMY AND A TECHNOLOGICALLY DRIVEN WORLD OUR FOCUS MUST BE ON BUILDING THE RIGHT SKILLS THAT HAVE STAYING POWER IN INCREASINGLY AI DEPENDENT ENVIRNOMENTS AND THAT WILL FUTURE PROOF US AGAINST THE NEXT SKILLS GAP AND ACCORDING TO THOUGHT LEADERSHIP IN BUSINESS AND EDUCATION, THESE ARE CRITICAL THINKING SKILLS.**

- We must first look at the relationship between jobs, degrees and skills.
- A recent study by Harvard University concluded that 90% of the jobs in the future are unknown to us today.
- With this in mind, universities will have to ensure that their degrees provide graduates with a multitude of job opportunities and career tracks.
- However, if we look to thought leadership in business such as The World Economic Forum, their most recent report identified critical thinking skills as the top skills to have in 2025:

4 of the top 5 most important skills of 2025 are directly related to critical thinking:

1. *Analytical thinking and innovation*
2. *Active learning*
3. *Complex problem-solving*
4. *Critical thinking and analysis*
5. *Creativity, originality and initiative*

*Future of Jobs Report 2020, World Economic Forum*

- Moreover, thought leadership in the world of education such as OECD, the author of PISA, which is a report that measures education systems in 175 countries have given the new PISA report (2023) the title of: Critical and creative thinking.
- Convergence of the views of thought leadership in the world of business and in the world of education makes the case for critical thinking skills being the skills to have in the future more plausible.

- Another reason why critical thinking skills are considered important future skills is their enabling power to transform human intelligence to augmented intelligence (a combination of human and artificial intelligence).
- If we look at the human brain, 50% of its area is the neocortex, which predominantly has three main functions: memory, perception and cognitive (processing) functions.
- The battle for memory between man and machine was lost to artificial intelligence a while back while perception seems to be following suit with AI-powered visual perception, touch, smell, and auditory closely behind.
- The only area AI is finding it challenging to conquer is the brain's cognitive functions, which are primarily led by the faculty of critical thinking.
- A good example of how augmented intelligence will work in the future is data-driven decision making powered by data analytics.

> **IF WE AGREE THAT CRITICAL THINKING SKILLS ARE THE SKILLS FOR THE FUTURE, THEN WE NEED TO HAVE A CLEAR SKILLS-BASED DEFINITION FOR CRITICAL THINKING, A WORKING FRAMEWORK, AND A PROCESS FOR MEASUREMENT, DEVELOPMENT AND DEPLOYMENT OF THESE SKILLS.**
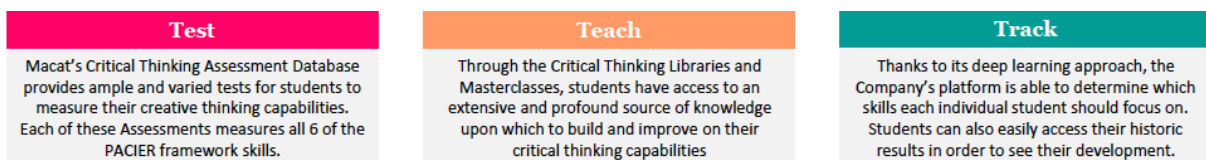
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d) WHO ARE THE BEST PROVIDERS FOR THE ASSESSMENT AND DEVELOPMENT OF CRITICAL THINKING SKILLS?

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> **MACAT INTERNATIONAL LIMITED, A UNIQUE VENTURE SET UP IN THE UK IN 2009 PROVIDES A WORLDCLASS ACADEMICALLY RIGOROUS END-TO-END SOLUTION TO THE MEASUREMENT AND DEVELOPMENT OF CRITICAL THINKING SKILLS.**

- In collaboration with the university of Cambridge, Macat has developed a skills-based definition for critical thinking, which defines critical thinking as the component skills of problem solving, analysis, creative thinking, interpretation, evaluation and reasoning.

- Macat's definition of critical thinking was further developed in collaboration with leading assessment and development experts working with renowned universities, testing authorities, multilateral organisations, and learning and development academics to produce a comprehensive framework for critical thinking skills (The PACIER Framework) based on the above 6 main skills and 24 sub-skills:
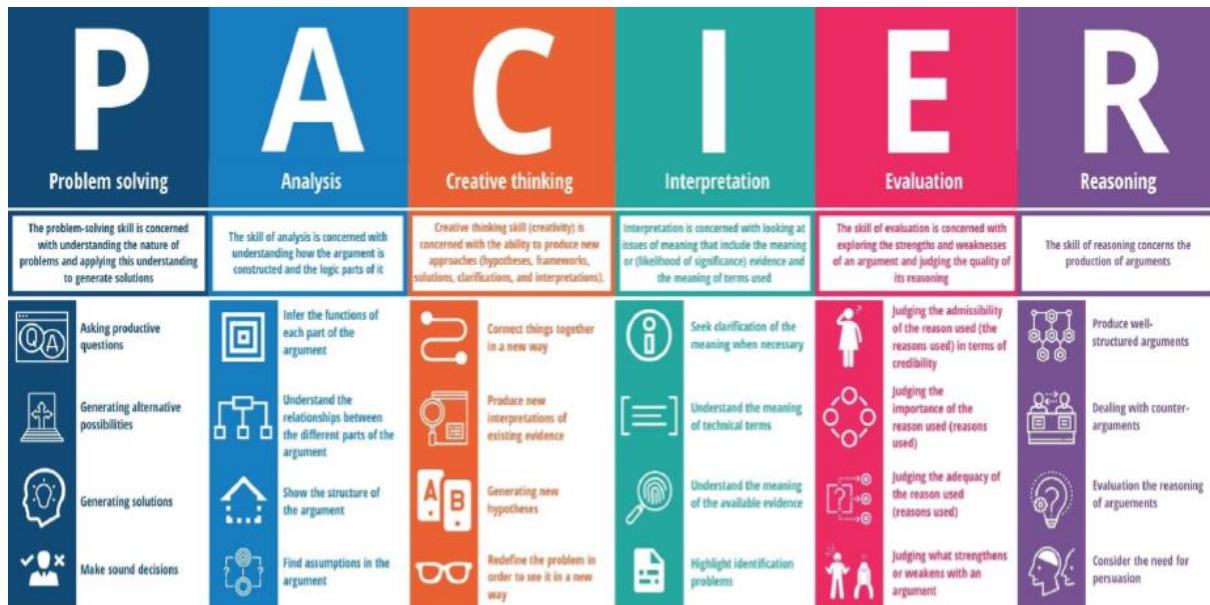
- The PACIER Framework was is implemented through a 3-stage process (The PACIER Process) that includes, testing your PACIER skills, teaching PACIER skills and tracking your progress:

Test	Teach	Track
Macat's Critical Thinking Assessment Database provides ample and varied tests for students to measure their creative thinking capabilities. Each of these Assessments measures all 6 of the PACIER framework skills.	Through the Critical Thinking Libraries and Masterclasses, students have access to an extensive and profound source of knowledge upon which to build and improve on their critical thinking capabilities	Thanks to its deep learning approach, the Company's platform is able to determine which skills each individual student should focus on. Students can also easily access their historic results in order to see their development.

- Building on the PACIER Framework and Process, Macat has developed three PACIER products
- Macat has developed a comprehensive assessment and development ecosystem around the PACIER Framework and Process, which includes a PACIER Assessment, a PACIER Library (220 titles), and PACIER Masterclasses.
- Macat has recently signed a 3-year collaboration agreement with The OECD to develop a global instrument for measuring critical and creative thinking in higher education.

➢ **MACAT INTERNATIONAL LIMITED CAN BE A PARTNER OF CHOICE FOR THE ASSESSMENT AND DEVELOPMENT OF CRITICAL THINKING SKILLS IN HIGHER EDUCATION.**

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e) HOW CAN UNIVERSITIES PLAY A CENTRAL ROLE IN RESPONDING TO THE GLOBAL SKILLS CRISIS?

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➢ **UNIVERSITIES THROUGH HIGHER EDUCATION CAN PREPARE GRADUATES WITH THE RIGHT SKILLS BEFORE ENETERING THE WORKFORCE AND THROUGH FURTHER EDUCATION CAN HELP THE WORKFORCE IN SKILLING, RE-SKILLING AND UP-SKILLING.**

- Universities will once again have a central role in combating the global skills gap by offering critical thinking skills assessment and development courses in their graduate, executive and continuing education programmes and learning tracks.
- These critical thinking skills programmes could be domain agnostic (multidisciplinary – teaching critical thinking as a generic subject) or domain-specific (discipline based – teaching critical thinking for a specific subject).
- In so doing, universities could benefit from the significant demand for skills assessment and development that accompanies the global skills gap.
- This will in turn help universities deal with the current pain points, including student enrolment, quality of students, dropout/completion rates, employment and employability of graduates, career tracks/opportunities of graduates.

➢ **IT IS REASONABLE TO EXPECT UNIVERSITIES TO CONSIDER THE DEVELOPMENT OF HE AND FE COURSES AND PROGRAMMES (INCLUDING MICRO CREDENTIALS) TO ASSESS AND DEVELOP CRITICAL THINKING SKILLS.**

SECTION (2) – SUMMARY OF HOST PRESENTATION AND RESPONSES BY PARTICIPANTS

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a) SUMMARY OF HOST PRESENTATION

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> ➤ **WE NEED TO ANTICIPATE THE NEXT GLOBAL CRISIS, UNDERSTAND IT WELL AND PLAN AN EARLY RESPONSE THAT COULD MITIGATE ALL THE RISKS.**

> ➤ **THE NEXT GLOBAL CRISIS IS A GLOBAL SKILLS GAP THAT WILL TAKE PLACE IN 2030 AND WILL AFFECT 1 BILLION PEOPLE WITH POTENTIAL LOSSES EXCEEDING $60 TRILLION.**

> ➤ **CRITICAL THINKING SKILLS ARE THE SKILLS FOR THE FUTURE.**

> ➤ **MACAT INTERNATIONAL LIMITED CAN BE A PARTNER OF CHOICE FOR THE ASSESSMENT AND DEVELOPMENT OF CRITICAL THINKING SKILLS IN HIGHER EDUCATION.**

> ➤ **IT IS REASONABLE TO EXPECT UNIVERSITIES TO CONSIDER THE DEVELOPMENT OF HE AND FE COURSES AND PROGRAMMES (INCLUDING MICRO CREDENTIALS) TO ASSESS AND DEVELOP CRITICAL THINKING SKILLS.**

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b) RESPONSES BY PARTICIPANTS

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- We are all talking about this topic, which is not only multidimensional but also needs to be discussed at a global scale, looking at what to do, how to do it and what strategies should be adopted to creative a cohesive and effective response to the global skills crisis.
- Though it is important to consider that universities are not created equal.

- Some universities will be able to respond to the global skills crisis while others won't and the responses will be different in scope and scale.
- We can all see the gradual shift of emphasis in higher education from deep subject knowledge to a much wider development of skills.
- However, it all comes down to the value of the degree and its impact on graduate employment and employability.
- We also see a consistent growth of the provision of apprenticeships.
- The relationship of governments and universities need to be also considered although the primary goal of government for universities of increasing access to higher education and social mobility remains relevant.
- As the induction and orientation of students is provided for in a foundation year, there needs to be a similar consideration for a year that does the same for graduates entering the workforce.
- Universities seek to develop graduates that will make a difference in societies.
- Critical thinking and creativity are much needed skills for both student and teacher.
- Universities must consider partnering with other key stakeholders, including companies, especially on the topic of graduate skills.
- Skills development is an interesting topic though we need to consider the complexity of systems and how an understanding and appreciation of such complexity will help craft an effective response by universities to the global skills gap.
- There is a multiplicity of causes or multi-causal explanations to the crisis and the proposed responses that are difficult to appreciate when considering the silos created by academic departments.
- We need more interdisciplinary and multidisciplinary approaches.
- Looking to the future we will need to consider several work settings, for example, working alone, working in small teams or working in large teams.
- It is also important to consider the growing appeal of remote working.
- It is plausible to want to skill, up-skill and re-skill people whether graduates or employees but what is more important is the result of such interventions, especially how to skill people at various points in their careers.

- It is equally important to manage the relationship between humanities and science, especially understanding the role of humanities in the process of developing a student's personality and their thinking system, as an educational product.
- We need to examine and balance basic-knowledge, meta-knowledge and high knowledge to make them a central part of the future of universities.
- Looking at the psycho-educational profile of students, we could identify two typology of students: the ambitious students, highly motivated for studies, and the less ambitious students who only wanted to finish their studies and get a diploma. In this context, it is important to try to create learning environments that cater to both student mentalities*.*
- Introducing courses or diplomas that are 1-year long and lead to a job upon completion of the course is very attractive to students as lack of experience for graduates makes it difficult to get a job.
- Universities should therefore be aware that they will enter in direct competition with some ED Tech companies which are offering "fast-*track training for jobs*".
- How to tackle lifelong learning and use it to help craft a response to the global skills gap.
- An example of an effective national project is the Human Capital Initiative in Ireland.