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The learning scientist Cameron Mirza

The critical success factor in the education system will always be the teacher.

It is essential today that teachers are supported to develop the skills, subject knowledge, attitudes, behaviours, pedagogical content knowledge and digital skills required to thrive in the classroom environment. The recently published teaching report by the Economist Intelligence Unit, sponsored by Microsoft, laid stark some sobering data.

- Only 26% of respondents think their training has equipped them for managing stress and burnout, a leading cause of teacher shortages.
- Only 38% feel their training is equipping them to use digital technology.
- A majority (60%) think new teachers will increase the use of technology by 2030.
- Half predict they will focus more on teaching social values and diversity, and nearly half (48%) expect an increased focus on social and emotional learning.
- Nearly all survey respondents agree that the purpose of education must shift to helping students know how to collect, interpret, and apply information, rather than just learning it.

The repercussions of this data are complex, cutting across several key aspects from curriculum to learner assessment. This complexity is further compounded if we consider data from Pearson's global survey of 11,000 learners from around the world.

- 78% believe that they need to develop their soft skills to give them the edge over automation.
- 84% of people agree with the statement that 'my career path will be significantly different from my parents or grandparents'.
- 81% believe that lifelong learning through a 'do it yourself' approach will become more prevalent.

What then should be the future capability framework for the teaching workforce?

The teacher will increasingly take the role of a facilitator of knowledge to develop the student's critical thinking, research, and problem-solving skills. Teachers will

need to learn how to nurture multidisciplinary learning, which will explore interactions between subjects by helping students explore themes such as climate change that are not collapsible into one subject.

This approach should nurture higher-order thinking, real-world knowledge application, collaboration, and problem-solving within students.

Technology training will be critical for teachers not just for the delivery of lessons but also to allow them to save time in lesson planning and marking. Technology and learning platforms within schools will create a significant amount of student data, and teachers will need to be trained on how to use this data to know their students on not just an academic level but also an emotional level: to use data to allow the curriculum to flex around the learner rather than the other way round.

Whilst most technology currently used in the classroom is low-fi, it is reasonable to expect teachers of the future to have a good understanding of Artificial Intelligence, and how to harness its potential to support learners and reduce their workloads.

What requires especial focus is the critical aspect of instructional design. Educators will increasingly need to think about designing strategies for deep learning as education systems globally migrate to a more blended delivery model.

The evidence arising out of the global pandemic is that students are dissatisfied with their online learning experience: the transition from 'brick' to 'click' has proven to be a challenge for many educators. More emphasis will need to be placed on educators to deliver in a multi-modal setting.

The higher-level cognitive functions of Bloom's taxonomy - creating, evaluating, analysing and applying - involve the cortical areas responsible for decision-making, association, and motivation.

As automation continues to redefine the world of work it is critical that teachers can develop higher-order thinking skills in learners; and support the development of intrinsic motivation for lifelong learning and the resilience required to navigate the unpredictability of modern life.

The future role of a teacher will surely be that of a learning scientist.

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