



## Synergy pod learning infrastructure – discover the joy of learning

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### Introduction

There has been much debate in Higher Education (HE) about the use of innovative technologies to enhance student learning. However, while technology alone may not have fundamentally changed teaching practices (Henderson, Selwyn & Aston, 2017), students report how several technologies and applications benefit their learning, research and collaborative activities (Henderson et al., 2017). Over the past 26 years, Kaplan and University College Dublin's (UCD) College of Business' Centre for Distance Learning (CDL) offer a wide range of undergraduate and postgraduate programmes to students in Singapore. Drawing upon a concise analysis of relevant literature and theoretical frameworks in the context of student learning and engagement, the author examines how Kaplan's state of the art collaborative learning environment, the Synergy Pods, can facilitate more effective and efficient student learning, assessment, feedback and engagement.

### Students, Technology and Learning

Today's students entering third level education have grown up immersed in technology can be categorised as 'digital natives' or the 'net generation'. Having been exposed to technology throughout their lives, this new tech-savvy student cohort tends to be very comfortable with technology and, subsequently, expect from HE institutions to offer innovative technology-driven learning spaces. As outlined by Bennett and Maton (2010), debates on technology usage in higher education often highlight a need to radically reform teaching styles and approaches that might better meet the needs of the digital native student cohorts.

Most higher education institutions (HEIs) utilise learning technologies, such as virtual learning environments (VLE), however, one of the main challenges HEIs are facing is the need to design and implement a **holistic approach to modern education** incorporating the three essential components of education, namely "**knowing**", "**doing**" and "**being**" (Figure 1). The "knowing" part covers theoretical frameworks and knowledge, however, students are also

required to apply theoretical knowledge into practice ("doing") while developing generic management skills, such as leadership and negotiation skills, ethical awareness and cultural competences ("being").

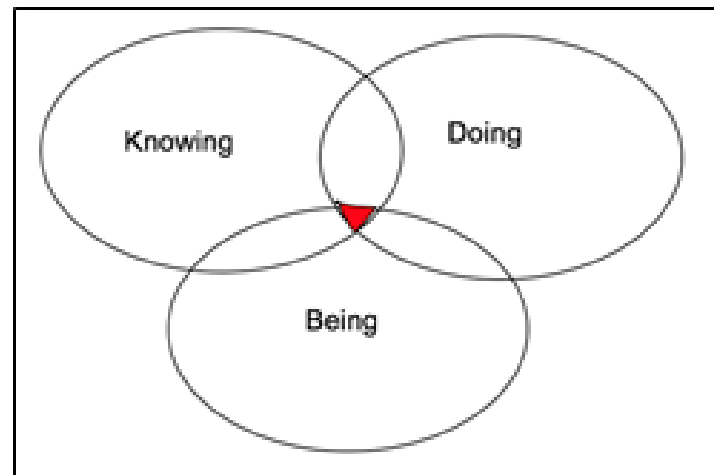


Figure 1: Components of Education

From a module assessment point of view, Evan's (2013) proposes an assessment framework accurately measuring **meaningful student learning** in the context of HE. The Evan's Assessment Tool (EAT) has been designed to implement **meaningful, actionable assessment strategies helping the learner to improve his/her overall learning experience** while completing a programme in HE. Unlike traditional full-time students, distance learning students have different learning and assessment requirements due to the nature of not being based on campus, thus, not having the same access to lecturers as full-time students have.

Some research suggests that students are not actively calling for universities and faculty to dramatically increase their use of technology, however, prefer moderate use of technology in their courses to enhance their learning (Henderson et al., 2017).

While Henderson et al. (2017) suggest that 'digital technologies are now an integral aspect of the university

student experience', their research findings point to a disparity between the rhetoric around the use of technology to enhance learning and the reality regarding students' use of technology.

Koehler and Mishra (2009) identify the **technological, pedagogical and content knowledge (TPACK)** framework exploring the relationship of technology, pedagogy and content knowledge required in teaching. The TPACK framework was introduced as a framework to allow teachers, academics, and researchers to conceptualise the knowledge base necessary to teach effectively with technology. The central elements of good teaching with technology according to TPACK include content, pedagogy and technology, and only the interplay between these three domains can generate the type of flexible knowledge which is needed to successfully incorporate technology into teaching.

In another relevant research article, Kolb and Kolb (2005) investigate foundational educational theories. Drawing on recent experiential learning theory, practice and research, the authors propose strategies of how **experiential learning** may improve student learning, student engagement, assessment strategies, curriculum development and faculty development in higher education.

Having studied above literature and theories in much detail, there was only ONE solution for the author to deliver his UCD lectures and student orientation sessions at Kaplan: **"Discover the Joy of Learning" in the Synergy Pod.**

### The Synergy Pod

Kaplan's Synergy Pod infrastructure setup allows the educator to implement an innovative curriculum design meeting the above discussed components of education while utilising innovative technologies and applications for teaching, learning, assessment and engagement in line with Koehler and Mishra's (2009) TPACK framework.

Additionally, the Synergy Pod allows for better student engagement, learning and assessment forcing students to move from being passive knowledge consumers to become active learners focussing on collaboration and "learning from each other" as outlined in Figure 2.

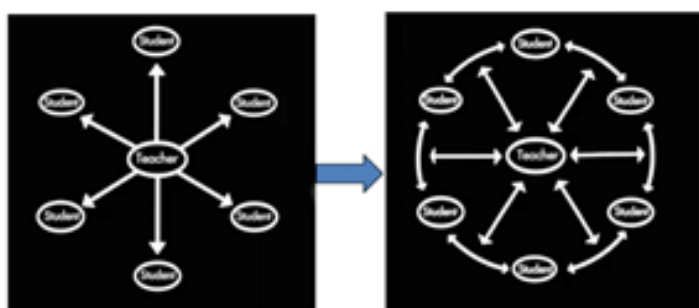


Figure 2: Traditional (left) and Collaborative (right) Learning

The author's personal experience using the Synergy Pod infrastructure has been extremely rewarding and satisfactory.

From a learner's point of view, module feedback suggest that this innovative learning infrastructure indeed improves

student learning and satisfaction. On one occasion during the MSc lectures, students voted in favour to extend the scheduled lecture time by one hour allowing them to play and discuss an online simulation again.

The state-of-the-art design of the Synergy Pod (figures 3 and 4) allows students to work on interactive projects, such as the Harvard Business Publishing online business simulation which the author administrated in class.



Figure 3: Synergy Pod MIS4011S SIMCA lectures MSc IT 39 & 40 (26-30 September 2018)

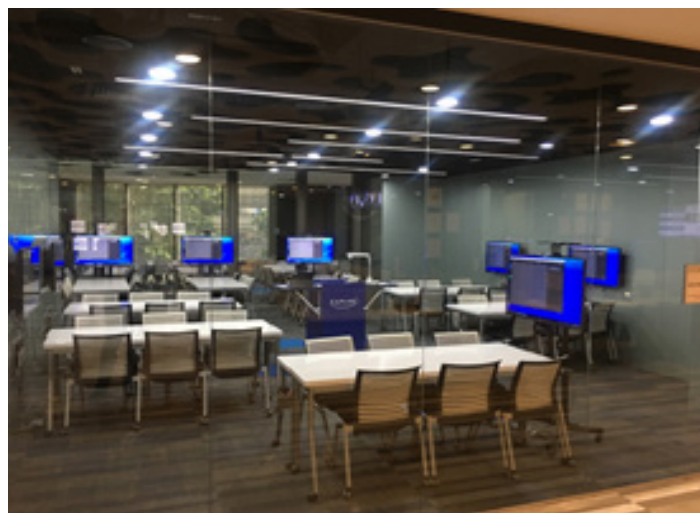


Figure 4: Synergy Pod MIS4011S SIMCA lectures MSc IT 39 & 40 (26-30 September 2018)



Figure 5: Students collaborating in Synergy Pod



Figure 6: Satisfied students

 A screenshot of a software interface titled "CLASS RESULTS & OVERVIEW" for "Run 1 (2007918, 2:40:AM GMT+1)". The simulation is marked as "CLOSED". The table shows the following data:
 

Name	Path Score	Collected	Survey 1	Survey 2	1	2
[Redacted]	11	11	NO intruders & NO Data Breach	Investigate	Very Likely	Likely
[Redacted]	1	1	Intruders & NO Data Breach	Restart	Neutral	Neutral
[Redacted]	10	12	Intruders & Data Breach	Restart	Likely	Likely
[Redacted]	13	13	Intruders & NO Data Breach	Restart	Very Likely	Likely
[Redacted]	4	4	Intruders & NO Data Breach	Restart	Very Likely	Likely
[Redacted]	14	17	Intruders & NO Data Breach	Restart	Likely	Neutral
[Redacted]	12	12	Intruders & NO Data Breach	Investigate	Neutral	Neutral
[Redacted]	19	19	NO intruders & NO Data Breach	Restart	Neutral	Unlikely
[Redacted]	12	16	Intruders & NO Data Breach	Investigate	Likely	Neutral
[Redacted]	14	16	NO intruders & NO Data Breach	Investigate	Likely	Very Likely

Figure 7: IT Management – Cyber Attack Simulation (Initial Results)

 A screenshot of a software interface titled "CLASS RESULTS & OVERVIEW" for "Run 2 (2007918, 12:17 PM GMT+1)". The simulation is marked as "CLOSED". The table shows the following data:
 

Name	Path Score	Collected	Survey 1	Survey 2	1	2
[Redacted]	16	18	NO intruders & NO Data Breach	Investigate	Neutral	Neutral
[Redacted]	13	15	NO intruders & NO Data Breach	Restart	Likely	Likely
[Redacted]	13	18	Intruders & NO Data Breach	Restart	Neutral	Neutral
[Redacted]	10	10	Intruders & NO Data Breach	Investigate	Neutral	Likely
[Redacted]	15	18	Intruders & NO Data Breach	Restart	Likely	Neutral
[Redacted]	19	19	NO intruders & NO Data Breach	Restart	Neutral	Neutral
[Redacted]	13	18	Intruders & NO Data Breach	Restart	Likely	Neutral
[Redacted]	17	19	NO intruders & NO Data Breach	Restart	Neutral	Likely
[Redacted]	13	15	NO intruders & NO Data Breach	Investigate	Very Likely	Likely

Figure 8: IT Management – Cyber Attack Simulation (Improved Results)

As a direct result from having used the Synergy Pod infrastructure for one of the author's MSc IT modules, we decided to administrate the overall MSc orientations for intake 41 in this dynamic learning environment (Figure 9) introducing students to the classroom they will be using throughout their studies at Kaplan and UCD in Singapore.



Figure 9: Synergy Pod Orientation for incoming UCD students MSc 41 (28 October 2018)

## Conclusion

We all have access to the same technology, applications and tools, however, achieving competitive advantage in the highly competitive educational industry forces today's and tomorrow's educator to innovate. Meaningful and actionable innovation will not only help us to stand out, however, also improve the ways we design and deliver relevant and highly engaging curricula to the new generation of students.

The author is very much looking forward to delivering forthcoming modules in the Synergy Pod and has started promoting this fantastic learning environment to both UCD and local faculty.

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