Citizen scholars: cultivating 21st century graduate competencies in business education

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Abstract

Purpose – This study has two objectives: (1) to identify gaps in the citizen scholar framework by comparing and synthesizing the relevant pedagogical literature and (2) to illustrate how 21st century graduate capabilities can be cultivated through teaching practices using the citizen scholar framework.

Design/methodology/approach – We briefly synthesize the relevant citizen scholar pedagogical frameworks and approaches. We use two case studies in two large classroom settings in Ireland and Australia to demonstrate how the citizen scholar attributes can be developed through curriculum design and multiple forms of assessment.

Findings – We identify that there is a need for digital literacy to be placed as a fifth attribution cluster in the citizen scholar framework. We also demonstrate that these graduate competencies can be developed at scale by embedding the citizen scholar framework in teaching practices.

Practical implications – We offer a practical implementation mechanism for cultivating 21st century graduate competencies, which will help further embed citizen scholar in pedagogy strategies, thus empowering learning at scale in business education.

Originality/value – The current study makes the first attempt to identify significant attribution gaps in the citizen scholar framework by synthesizing and mapping the relevant approaches. Detailed examples of curriculum design from the two countries also offer new insights into the implementation of a citizen scholar framework.

Keywords Citizen scholars, Connected learning, Challenge-based learning, Experiential learning

Paper type Case study

1. Introduction

Prior to the widespread adoption of mass education, higher education (HE) was a privilege accessible to only a small percentage of school leavers. These individuals, often earmarked for leadership roles, entered the workforce armed with a repertoire of skills and competencies acquired during their time at university. Consequently, they were highly predisposed to gain good graduate positions in influential companies and had the potential to make meaningful contributions to societal welfare as responsible citizens (Bowen, 1977).

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The landscape of HE has dramatically shifted with a substantially greater proportion of high school graduates now entering universities (Altbach *et al.*, 2019). This growing demographic poses an imperative question: can we continue to presuppose that all university graduates will inherently possess the competencies once considered exclusive to a privileged few? More pertinently, in the context of business schools within HE, there emerges a salient need to interrogate the curricula. Should we be consciously incorporating pedagogical strategies aimed at developing 'citizen scholars' – graduates who are not only adept in their professional capacities but are also equipped to navigate and make informed contributions in today's complex and perpetually evolving global landscape?

The idea of citizen scholar comes from an educational concept that integrates civic engagement, social responsibility and community involvement within the traditional academic structure (Arvanitakis and Hornsby, 2016). While there is no one-size-fits-all model, the concept generally aims to produce graduates who are not only academically proficient but are also responsible citizens committed to social justice, community service and civic participation.

There is little evidence of the development of citizen scholars published in the field of business education and this paper fills that significant gap. Therefore, the purpose of our study is primarily to introduce two examples of how we have been working towards developing citizen scholars in our large business school classrooms across two countries, continents and hemispheres. We reflect on our models and provide guidance for other educators wishing to develop citizen scholars through their own teaching practices. Our secondary goal is to reflect on our teaching and the literature and identify whether there are gaps in the citizen scholar framework that could be further explored.

2. Literature review

First, we examine graduate competencies and discuss the similarities and differences with the idea of citizen scholars. We then explore three approaches that align with the development of such competencies.

2.1 Graduate competencies

It is the goal of every HE institution to produce graduates who are highly competent and skilled both in their discipline area of study but also in other areas.

> Competency is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. For example, the ability to communicate effectively is a competency that may draw on an individual's knowledge of language, practical information and technology skills and attitudes towards those with whom he or she is communicating (Ananiadou and Claro, 2009, p. 8).

The terms 'graduate attributes' or 'graduate capabilities' refer to the skills, knowledge, abilities and qualities that students are expected to develop during their time in HE (Barrie, 2006). These attributes are often explicitly outlined by educational institutions and serve as a framework for curricular design, teaching practices and assessment methods. They aim to prepare students for both their professional life and for being responsible, effective citizens in a VUCA (volatile, uncertain, complex and ambiguous) world (Sarkar, 2016).

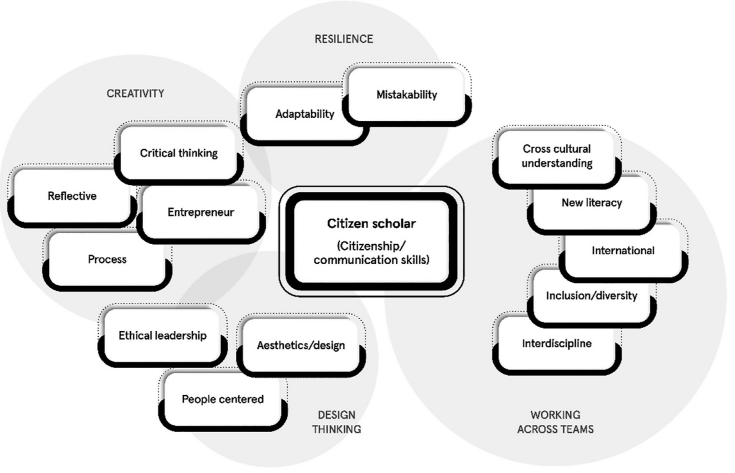
The concept of graduate attributes has evolved over the years, influenced by various educational theories, economic needs and societal changes. In the past, HE was primarily viewed as a means of acquiring specialized knowledge in a particular field. However, as the nature of work and society has become increasingly complex, there is a growing recognition that graduates need a broader range of competencies to succeed (Barrie, 2006; Ananiadou and Claro, 2009; Cairns and Malloch, 2017). Key drivers for the development of a set of graduate

attributes include employability, globalization, technological change and social responsibility (Clarke, 2018). Common graduate attributes often include critical thinking, communication skills, teamwork, ethical thinking and lifelong learning. In business schools, particularly those with accreditation requirements such as AACSB, AMBA or EQUIS, graduate attributes may also include specific skills relevant to the business world, such as leadership, strategic thinking and entrepreneurial capabilities (Avolio *et al.*, 2019).

Cairns and Malloch (2017) call for a more nuanced, holistic approach that can adapt to the challenges of the 21st century. Given the diverse challenges faced in the business world, from ethical dilemmas to fast-paced technological changes, a holistic, capability-based approach to graduate attributes may better prepare business students for the uncertainties of the future, enabling them not only to adapt to different professional contexts but also to contribute to broader societal issues like sustainability (Cairns and Malloch, 2017). In this paper, we investigate this proposition through the analysis of two case studies.

2.2 Citizen scholars

The citizen scholar is defined as "a student who cares not only about gaining information and generating knowledge but one that is rooted in the reality of the context, problem oriented and interested in applying their knowledge for the betterment of a society" (Arvanitakis and Hornsby, 2016, p. 1). Arvanitakis and Hornsby (2016) have developed a citizen scholar framework where both scholarship and actively engaged citizens can be embedded in pedagogical strategies. The citizen scholar framework directs students towards their responsibilities as citizens in their communities (Hornsby, 2020). Active engagement in communal (societal) problems gives students a motivation to learn, a purpose to carry out the coursework, and a desire to be a citizen scholar. Educators are encouraged to foster learning environments in which attributes of citizen scholars such as resilience, adaptability and ethical leadership can be developed (Arvanitakis and Hornsby, 2016) (Figure 1). Universities have a responsibility to create opportunities for students to practice as citizen scholars and prepare them for an ever-changing complex world (Velardo, 2018; Hornsby, 2020). Citizen scholars will be best placed to demonstrate responsible leadership and play an important role in the success of businesses in VUCA environments.



Source(s): Adapted from Arvanitakis and Hornsby (2016)

Figure 1.
The citizen scholar framework

Educators have embraced the concept of citizen scholar, underpinned by a pedagogy rooted in critical service-learning (Mitchell, 2007). Critical service-learning is a term used to characterize a community service-learning approach with a focus on social justice (Mitchell, 2007). It not only challenges students to question 'Why are conditions this way?' (Bickford and Reynolds, 2002, p. 231), but also assists them in understanding the root causes of injustices, fostering a sense of responsibility to create meaningful change in communities (Bickford and Reynolds, 2002; Mitchell, 2007).

Mitchell (2007) presented a case study using a critical service-learning pedagogy applied through the Citizen Scholar Programme at the University of Massachusetts Amherst. Participants were required to complete a four-course sequence, one elective course, and 60 h of service in the community each semester. The program was designed to encourage students to think critically about social issues and act creatively to produce change. Through the Citizen Scholar Programme, the study suggests that a critical service-learning pedagogy encourages students to think more deeply about and develop commitments to act for social justice.

Velardo (2018) conducted a study focusing on the revision of a first-year health undergraduate course to promote and foster greater social awareness and critical health literacy skills. The course utilized collaborative, learner-centered approaches that disrupted traditional pedagogic paradigms which overly emphasize knowledge about social issues rather than in-depth analysis and action-oriented solutions. This educational strategy, while applied in a health context, has pertinent implications for business education. By adopting similar pedagogical frameworks that encourage open-ended dialogue, problem-solving and advocacy activities, business schools have an invaluable opportunity to foster graduates who are not only proficient in their professional roles but are also socially responsible and equipped to address future societal challenges.

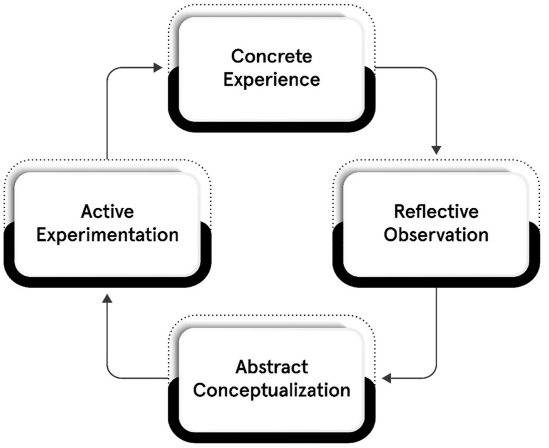
One may question whether the idea of graduate attributes is the same as that of citizen scholars. Both paradigms stress the importance of critical thinking, ethical reasoning and effective communication (Dixon and Mendelowitz, 2016). In both cases, the ultimate goal is a well-rounded individual capable of navigating complex real-world challenges. However, there are subtle differences. The citizen scholar framework is more expansive in its aims, integrating not just job-ready skills but life- and citizen-ready skills. It involves a call for deeper societal engagement, which may or may not be present in previous discussions on graduate attributes.

Our study has two objectives: (1) to identify gaps in the citizen scholar framework by comparing and synthesizing some relevant pedagogical literature and (2) to illustrate how 21st century graduate capabilities can be cultivated through teaching practices using the citizen scholar framework.

2.3 Pedagogical approaches

The next section provides a brief description of experiential learning (EL) as an overachieving theory, followed by two specific pedagogical approaches that are aligned with the idea of citizen scholars (e.g. challenged-based learning (CBL) and connected learning (CL). We then present two case studies illustrating the practical implementation of these approaches.

2.3.1 Experiential learning. The most widely cited work on contemporary EL theory was developed by Kolb. Kolb (1984) describes his four-stage EL as "the process whereby knowledge is created through the transformation of experience" (p. 41), which involves experiencing, reflecting, thinking and acting. The model presents two primary forms of experience: concrete experience and abstract conceptualization and two ways in which experience is transformed into knowledge: reflective observation and active experimentation (Figure 2). Kolb's model faces some criticism due to its perceived lack of clarity, its strong



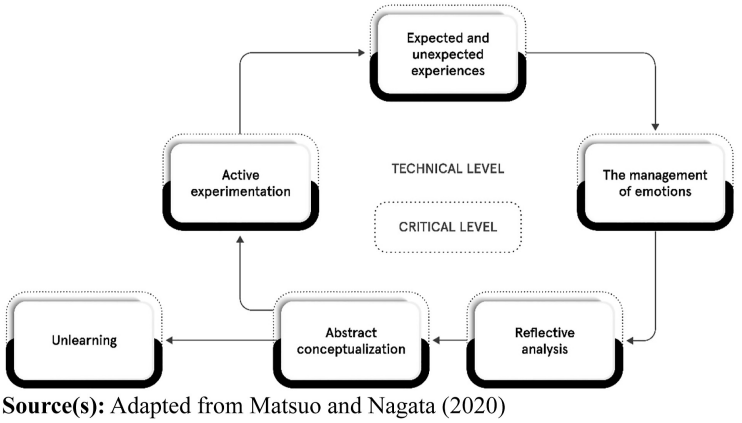
Source(s): Adapted from Kolb (1984)

Figure 2.
The experiential learning cycle

focus on individual learning, exclusion of an explicit process that accounts for emotions, such as anxiety, fear and doubt especially during the early stage of learning and inadequate consideration of 'second-order' learning process such as critical reflection (Bergsteiner *et al.*, 2010; Matsuo and Nagata, 2020).

In light of these criticisms, Matsuo and Nagata (2020) revised the EL process, as depicted in Figure 3. The revised model consists of six steps: (1) expected and unexpected experiences, (2) the management of emotions, (3) reflective analysis, (4) abstract conceptualization, (5) unlearning and (6) active experimentation.

EL is fundamentally an active learning process where an individual actively engages in an activity, reflects on the experience, determines what was useful or important to remember and subsequently applies the knowledge gained to perform another activity. This process allows the learner to develop not only knowledge but also transferable skills and attributes, all of which stem from direct experiences, whether within or outside a traditional classroom setting (Kolb, 1984; Obi *et al.*, 2022). EL places a strong emphasis on preparing individuals for



Source(s): Adapted from Matsuo and Nagata (2020)

Figure 3.
Revised model of the experiential learning process

the workforce and enhancing graduate employability (Obi *et al.*, 2022). EL can take many forms and activities such as paid or unpaid internships, work-integrated learning, community-engaged learning, case discussions, simulation games, descriptive or analytic field projects and computer-assisted instructions (Buzzelli and Asafo-Adjei, 2023; Lynch, 2023; Obi *et al.*, 2022).

Based on a meta-analysis of 89 studies published over a 43-year period, Burch *et al.* (2019) found that students experienced superior learning outcomes when experiential pedagogies were employed. EL has gained momentum especially in business education due to operating in a VUCA world and the increasing need to produce graduates with 21st century competencies (Obi *et al.*, 2022). Some scholars believe that the most effective and efficient methods of assessing and developing the competencies for the 21st century are through hands-on and experiential learning exercises (Obi *et al.*, 2022) and that large class teaching and learning can contribute positively to such activities (Mantai and Huber, 2021).

2.3.2 Challenge-based learning. CBL is a growing pedagogy in HE that enables students to acquire disciplinary knowledge while developing transversal competencies to investigate authentic and sociotechnical societal problems (Gallagher and Savage, 2023). Membrillo-Hernández *et al.* (2019) provide a comprehensive comparison among three similar concepts: project-based learning, problem-based learning and CBL (see the appendix for details). Though the term of CBL first appeared in the academic literature over 20 years ago (Giorgio and Brophy, 2001), its meaningful and impactful implementation has been compromised due to its lack of definitional clarity, varied implementation approaches and inconsistent research results on its efficacy (Gallagher and Savage, 2023). Gallagher and Savage (2023) identified the key characteristics of CBL, which include global themes, real-world challenges, collaboration, technology, flexibility, multi-disciplinarity and discipline specificity, creativity and innovation and challenge definition (Figure 4). Gallagher and Savage (2023) also found that only a limited number of studies had incorporated CBL as an integrated part of the curriculum design; rather, CBL was introduced as an innovative pedagogical approach to complement existing structures. Detailed comparison among other similar terminologies such as project-based learning, problem-based learning, and CBL are provided in Appendix.

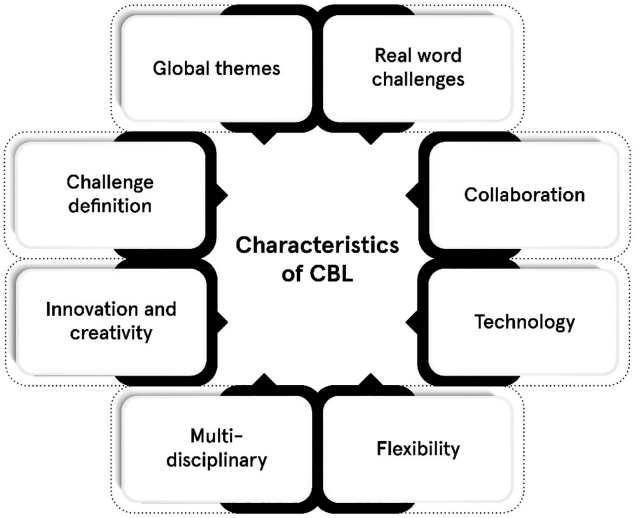


Figure 4.
Conceptual framework of CBL characteristics

Source(s): Adapted from Gallagher and Savage (2023)

CBL was a suitable approach in our two cases due to its unique features. CBL involves students working in teams with stakeholders to investigate and co-create solutions for real-world social, technological, environmental and economic challenges, whereas in problem-based learning, students build knowledge through a predefined task or a pre-designed problem, which may be real or fictionalized (O'Riordan and Gormley, 2022).

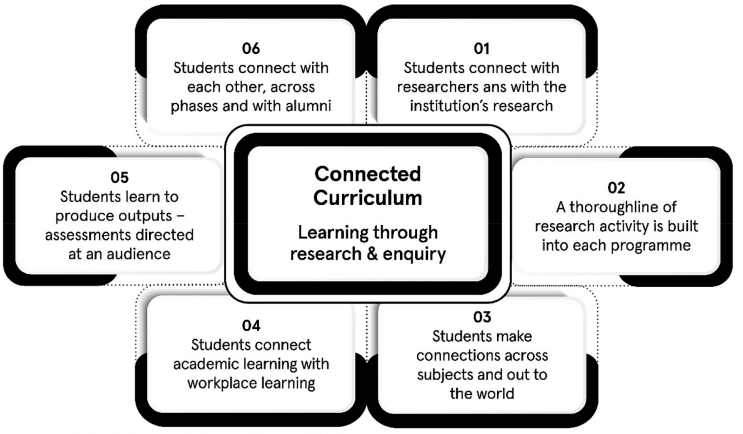
2.3.3 Connected learning. The concept of a "Connected Curriculum" posits that HE should be a collaborative enterprise between students and staff (Fung, 2017). Her model suggests that learning should not be compartmentalized but should rather form an interconnected web that links different subject areas, research, and societal needs (Figure 5). She advocates for students to be partners in the production of knowledge, emphasizing that this approach not only enriches the student experience but also contributes to academic research and societal well-being.

A more nuanced concept within this is one of CL. Bryant (2018) focuses on how technological tools and online platforms can be leveraged to create more interactive, student-centric learning environments. Digital platforms can be used to foster community-building, enhance student engagement, and provide opportunities for collaborative learning, both within and outside the formal educational setting. Ito and colleagues have also popularized the ideas behind CL. They define this approach as championing the expansion of learning opportunities that are deeply rooted in social contexts, driven by individual interests and aimed at creating educational, financial or civic advantages. This form of learning is successful when young people can explore their personal interests or passions with the backing of supportive peers and adults. This, in turn, allows them to connect their interests to academic accomplishments, professional growth or active civic participation (Ito *et al.*, 2013).

All of these works build on the seminal works of George Seimens and Stephen Downes on Connectivism (Siemens, 2005; Downes, 2008), who argue that learning is a network phenomenon, facilitated by connections between individuals, institutions and information.

When comparing the above competency frameworks and pedagogical approaches, we found many overlaps and a few standout points. These are displayed in Table 1.

We are particularly interested in this paper in contextualizing the citizen scholar framework and noting any additions that may be relevant. From our initial comparison, we note that a new cluster is required if we wish to align with other approaches. We discuss this further in the next section.



Source(s): Adapted from Fung (2017)

Figure 5.
Connected curriculum

Pedagogy framework	Citizen scholar competencies Creativity and innovation	Design thinking	Resilience	Working across teams	Digital literacy
Citizen Scholars	✓	✓	✓	✓	X
Challenge Based Learning	✓ Innovation and Creativity Real world challenges	✓ Challenge definition	✓ Flexibility	✓ Global themes Collaboration Multi-disciplinarity	✓ Technology
Connected Learning	✓ Connect academic learning to workplace learning Produce outputs — assessments aimed at an audience	✓ Connect with researchers and the institution's research	X	✓ Connect across subjects and out to the world Connect with other students, across phases and with other alumni	✓ Tools/platforms leveraged to create more interactive, student-centric learning environments
Experiential Learning	✓ Expected and unexpected experiences; reflective analysis	✓ Expected and unexpected experiences; abstract conceptualization	✓ Managing emotions; unlearning; active experimentation	X	✓ Active experimentation

Source(s): Table created by authors

Table 1. Synthesis of pedagogy frameworks and learning approaches from our cases across the citizen scholar competencies

3. Methodology

This paper brings together examples of practice from two institutions, one in Ireland and another in Australia, to interrogate a framework for the development of citizen scholars. First, we look at the competencies defined by the citizen scholar framework and overlay them with the approaches of CL and curriculum plus EL. We chose these approaches as they were the ones exemplified in our teaching cases. For each approach, we envisaged the competencies that students may develop. We then present the two business education teaching cases in detail and finally compare and contrast the two scenarios against the citizen scholar framework (Arvanitakis and Hornsby, 2016). We take a metacognitive approach to reflecting on our practice through both strategic reflection: attention to generalized knowledge or approaches (to teaching) that are applicable across contexts; and epistemic reflection: a cognitive awareness of one's reflective processes as well as how they may impede the reflection on and enactment of plans (McAlpine *et al.*, 1999, p. 110 cited in Harvey *et al.*, 2016). This was enacted by critical self-reflection of our own practices (reflection-on-action) followed by a synthesis for others to enhance their own curriculum designs and action plans for developing citizen scholars (reflection-for-action).

3.1 Case 1 embracing the citizen scholar framework through enterprise-engaged curriculum design

This client-based module is designed for students to partner with an enterprise client of their choice to identify pressing marketing issues and carry out marketing research to shed further

light on these issues. This project encourages students to embrace their responsibilities as citizens in their various communities. Most of the students in this module have chosen to collaborate with small and medium enterprises (SMEs) in their local communities. The key objective of this project is for students through meaningful and active engagement with businesses, to have an opportunity to develop and apply their marketing knowledge and skills and build up their citizen scholar competencies, such as resilience, adaptability, equality and ethical leadership. In the meantime, through close collaboration with students, enterprises can reap the benefits of the students' marketing insights and enlightening ideas.

The project consists of two assessments: the group proposal (30%) and the individual research report (70%). The detailed marking scheme, guidelines and templates for the research proposal and report are provided to students in the first lecture. Even though this module is delivered to a large class with an average of over 250 students, each student receives individually customized feedback due to the implementation of the grading rubric set up on the university's online learning platform. The individual research report is broken down into seven specific marking criteria (e.g. Subject Knowledge and Coherence 20%). Students' reflection on the research process offers the module instructor an opportunity to gain valuable insights into their learning journey.

Students' meaningful work has created a sustained and significant impact both within and outside the wider university community. To date, over 790 businesses across Ireland have gained direct benefits from these projects over the last seven years, involving over 1,000 students. Research projects have covered almost every sector of business, ranging from charity (e.g., Barrestown; Peita House; St Vincent de Paul; LauraLynn); sustainable consumption (e.g., second-hand clothing; sustainable coffee cups), local restaurants/food trucks/coffee shops and community clubs/rugby/soccer clubs. Employing their research skills, students have investigated a broad range of timely issues, such as formulating sale strategies in response to fast-changing environments, how to gain a competitive advantage in a saturated market and how to manage social media platforms with limited resources.

This Citizen Scholar pedagogy design has recently been adopted by colleagues teaching other marketing modules, leading to further direct impact on both students and businesses each year. Students' scholarly curiosity, continuous enthusiasm and professionalism have been constantly praised by businesses and communities. The insights that the students have brought to many enterprises are refreshing and intriguing. An example of feedback from industry partners is presented below:

> 'We were delighted to be involved with the [institution name removed for blind review] marketing research project with [names of the students]. We were so impressed with the students' professional presentation and enthusiasm. It has been a fantastic opportunity to learn more about the importance of online marketing and the sustained demand for Irish craft in the current climate. The routes recommended by the students to capitalise on this has really given us food for thought [. . .] I would really recommend this partnership to any other SME who might be struggling with marketing or just needs a fresh perspective.' (SME owner)

Students' feedback on this module has also been very positive, as demonstrated in some testimonies: '*This issue and this charity is something I hold dear and it almost didn't feel like an assignment at times because I was researching a cause I cared about.*' '*The most enjoyable part of the project for me was having the opportunity to collaborate with the owners of [name of the firm]. I really enjoyed working with them and listening to the challenges that their company is currently faced with.*'

We have observed that students' competency in using technology in the marketing research process varies (e.g. the use of online survey tools, databases, data analysis and presentation software). This variation highlights the need to incorporate the development of

digital literacy, especially in the ethical and legal use of Artificial Intelligence, for graduate attribute development.

3.2 Case 2 – Connected Learning for citizen scholars through purposeful curriculum design

Our second case study describes two assessments within an innovative unit called Leading in a Post-crisis World. This elective unit sits within a Master of Commerce degree program but can also be undertaken at the undergraduate level (as an elective). There are up to 140 students per class (postgraduate) and around 400 students (undergraduate). Students in this unit are exposed to over 100 different leaders' voices from across many different business sectors, and given choice and agency over the content.

The assessment tasks were purposefully designed to give students opportunities to demonstrate a range of skills and attributes important for the development of citizen scholars. One of the aims of this unit is to align it with the university's core value of 'leadership for good' and to thus help students to connect with those values. Another aim is to facilitate a CBL approach through the use of a student's choice of global, local, or personal challenge.

Leadership Legacy Portfolio (LLP): Students compile an LLP to evidence their leadership development and educational and personal growth over time. Students employ Padlet as a visual self-introduction (a book cover, movie poster, piece of art, photograph, etc.) to encapsulate their experiences from the past year. Periodic reflections are uploaded to the learning management system and these can then be referred to as they assemble their end-of-semester portfolio. Weekly workshops and tutorials give students opportunities to engage in small-group discussions to explore their leadership values and contemplate their leadership legacy.

The assessment task prompts students to engage in a multifaceted reflection and creative representation encompassing several key dimensions: their personal interests and values, aligning them with potential contributions to global challenges, possibly inspired by the Sustainable Development Goals (SDGs); their desired leadership legacy and the new perspectives they aim to incorporate into their professional life; identification of the leadership traits, skills and attitudes they currently possess, as well as those requiring further development, to better contribute to society and meet future business demands; articulation of their individual leadership stories, requiring evidence-based narratives; cognitive biases through reframing how their future outlook could enhance their crisis leadership efficacy; the application of their design thinking skills in a post-crisis business or organizational setting and how their perspective on creativity has evolved throughout the course.

The focus of the portfolio is on the process of learning and development, rather than the output or final presentation, so students are invited to tell their stories in their own way. When choosing a platform and design for their portfolio, students are encouraged to consider building on it throughout their professional career.

The marking criteria assess critical reflection on leadership style, capability and potential, ensuring an understanding of their individual leadership paradigms. The criteria place importance on providing examples coupled with critical commentary on leadership concepts, both from the subject material and broader literature. Evidence of sustained engagement is sought through timely participation in various platforms like Canvas, Padlet or Miro boards in addition to their contributions to workshop discussions and activities, with a focus on depth and relevance. Timely and effective contributions to group projects are assessed, usually through peer evaluations, to gauge teamwork and collaborative skills. Finally, creativity is encouraged, with an emphasis on the effective use of visuals to augment the narrative.

Whilst technology used to produce the portfolio is not graded, the predominant use of MS PowerPoint over more innovative technologies, platforms or software indicates a need to explicitly foster digital capabilities in our curriculum design.

3.2.1 Student feedback. In focus groups, students were asked about the LLP and whether it challenged them to critically reflect on their business or leadership responsibilities. One student said, "I got self-aware the more I know that OK so these are my tools of trade, my internal tools of trade that I can use for my future prospects." Another described it as "a reflection on where we have come as leaders and where we are planning to go and how," and involving, "a lot of self-reflective, a lot of metacognitive work." One student who had been promoted to a higher-level HR role explained "I think [the LLP] has pretty much contributed to my current role right now, so I'm pretty grateful for that."

3.2.2 Group project – business not as usual. Another core design element of this unit is to incorporate opportunities for students to work with both global and local challenges and help them feel more connected to society. In this way, we incorporate elements of CBL and CL into the course delivery and assessment.

The major assessment task in this unit is a group project where students investigate a global or local challenge and present a pitch to an industry panel along with a report on the issue and their proposed solutions. The solutions are presented in terms of five actions: political, economic, commercial, community and personal. Each week during the workshops and tutorials, the groups work together to solve given challenges (usually between a choice of two or three) so that they build their reasoning, presentation and critiquing skills as well as learn about each other's strengths and weaknesses. The reflections included in the LLP often refer to this group task, which for many of our international students has been the first opportunity to practice their leadership skills such as negotiation and communication.

One student explained that looking beyond the pandemic to other crises was important, stating "to actually think outside the pandemic box and look at crisis from a different perspective I think that was the key in finding what this unit actually means." Examples of problems/solutions the students have chosen and developed include: the impact of the Russia/Ukraine war on energy supply in Germany; chronic workplace stress, negative impact on work productivity; the reduction of greenhouse gas emissions and obesity in Australia.

The industry panel provides feedback to the groups and has been impressed with the level of critical thought that goes into these projects. For example, one panellist stated

> 'Your presentation was very well-crafted, and it's evident that you've put significant thought into addressing a critical global issue in the hotel industry during the pandemic. The solution you've proposed not only demonstrates a keen understanding of the challenge at hand but also showcases your ability to think strategically and lead effectively.' (Industry panel judge).

Similar to the LLP, we have noticed that most students stick to PowerPoint as their means of presentation and use email or WeChat for their communications channels. Those students who chose more creative outlets such as video or a website were able to demonstrate their digital capability.

4. Discussion

We reflected on our actions and extracted examples of how we each develop different student capabilities through our teaching. Table 2 shows where the four main attribute clusters of the citizen scholar framework can be identified in each case study (see also Figure 2). An additional attribute (digital literacy) is also included for the reasoning explained in the following section.

4.1 Reflections

Through reflecting on our teaching and the citizen scholar competencies, we synthesize our findings across four thematic areas.

Attribute cluster	Case 1 examples	Case 2 examples
Creativity	Based upon thorough marketing research and data visualization, students are encouraged to provide innovative and sustainable solutions to a broad range of business problems (e.g., more environmentally friendly packaging; creative marketing campaigns)	Each week in the workshop sessions students are presented with a specific challenge. They are given the choice of various forms of industry (such as airlines or education for example) and they can apply their knowledge learned in the course to date to solve that problem
Design thinking	Students are encouraged to develop an insightful understanding of the client's needs and the need of its market; research ethics is emphasized; the course received the ethics approval	Ethical leadership is one of the topics in this unit and students are encouraged to reflect on this in their weekly reflections and summarize in their LLP
Resilience	During Covid, students adapted to use a wide range of data collection techniques such as online interviews and focus groups	One week we provide a problem to students and half way through the session we add a twist to the problem – in this way students are required to adapt their solution and thinking and often change direction
Working across teams	Students work as a group to plan and develop a research proposal for their client	The group project and the weekly workshop gives students many opportunities to work across disciplines and nationalities. We allow students to choose their own problem and in this way they have to negotiate and take turns leading
Digital literacy	Students can choose to use different media and digital channels to communicate their research findings to their clients; recommend some creative digital marketing campaigns	In the LLP they can choose the platform they wish to create their portfolio on which enables them to either learn a new technology/tool or develop skills in one they already know

Source(s): Table created by authors

Table 2. Citizen scholar attribute clusters identified in each case study

Impact and sustainability: The two cases demonstrate that embedding the citizen scholar framework in the curriculum design has the capacity to create a sustained and significant impact on both the university and society (Arvanitakis and Hornsby, 2016), thus benefiting the wider stakeholders. Reflecting on the two cases, it is very encouraging to witness the collaborative spirit between students and businesses, who, by working together, created and enhanced a sense of community and solidarity – values which will no doubt have a long-lasting impact on our society (Obi *et al.*, 2022). Educators are encouraged to design mechanisms that systematically capture the benefits of students' work to the key stakeholders and its impact on the society.

Digital competency: Some frameworks and approaches delineate technology as a specific item, emphasizing its unique importance (Fung, 2017; Gallagher and Savage, 2023). In contrast, the citizen scholar framework does not. There is a brief mention of technology under the element 'new literacies' (under the 'working within teams' cluster). This raises critical considerations for educators and curriculum designers: Does isolating digital competency risk compartmentalizing a skill set that is increasingly ubiquitous in both academic and societal interactions? Or, conversely, does its integration across competencies risk diluting its significance, potentially overlooking its specialized nuances? We believe from our own practice and observations that digital competency is not inherent in our students. By purposefully exposing our students to a range of technologies and giving choice to their

presentation of assessment tasks (for example), we can provide a safe space for them to practice the digital skills that will be required in the workplace.

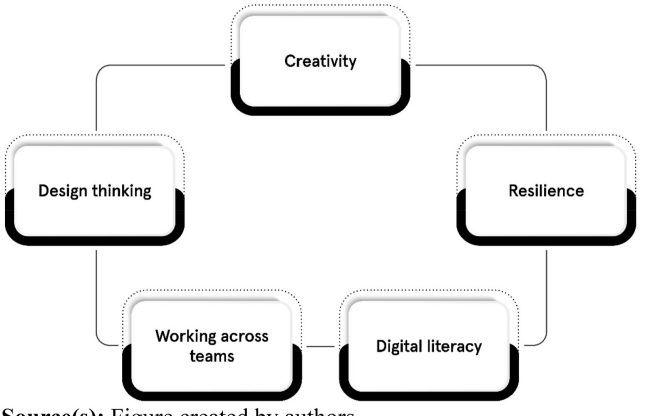
Defining these requirements is no easy matter. A recent literature review of digital competencies and their application to the workplace found a lack of scientific research on digital competencies of adults and the workplace (Oberländer *et al.*, 2020). These authors developed a coherent and detailed framework for workplaces to identify the specific digital literacy needs of certain jobs. Many digital capability frameworks are available which define the knowledge, skills and attitudes that people and organizations need to engage confidently, critically and safely with digital technologies (See for example DigComp, the European Digital Competence Framework for Citizens).

We concur with Oberländer *et al.* (2020) that there is still a need to develop digital literacy even for our young adults who are digital natives and as such we suggest a modification (addition) to the citizen scholar framework to include this competency. Figure 6 shows a possible overview of the five attribute clusters.

Assessment and course design: Both cases integrate many of the elements of citizen scholars into their designs; however, some of the sub-elements are not particularly explicit. For example, in case 1, the design thinking principles are not specifically taught in the module. However, research ethics is an important element of the course design and assessment. Another example is case 2 whereby the element of 'mistakability' (within the resilience cluster) could be further explored by offering more options for students to present their work and receive feedback on drafts before doing their final pitch to industry. This is currently offered as an optional activity, but few groups take up the opportunity. By explaining the benefits and need for developing this competency, more students may be able to improve in this task.

4.2 Implications for practice

The implications of using the citizen scholars framework are particularly relevant to educators and learning designers in the field of business education, as listed in the following recommendations. We synthesize our reflection-for-action across four thematic areas.



Source(s): Figure created by authors

Figure 6.
Modified citizen scholar framework: high level attribute clusters

Curriculum design and pedagogical methods: We believe it is time for a more holistic approach to education that extends beyond specialized academic skills (Arvanitakis and Hornsby, 2016; Cairns and Malloch, 2017). This entails the integration of civic engagement, ethical reasoning and social responsibility alongside academic rigor. A curriculum designed in this way would aim to produce graduates who are not just subject matter experts, but also committed citizens equipped to confront complex societal challenges. This is particularly pertinent in an increasingly interconnected and volatile global landscape where the delineation between academic disciplines and real-world problems can be blurred.

Assessment: In the context of citizen scholars, it becomes evident that conventional assessment methods like examinations and essays may not fully capture the breadth of skills and competencies our students are expected to develop. Therefore, diversifying assessment strategies is imperative. Portfolios, reflections and community service reports and other alternative forms of assessment can serve as performance indicators that go beyond traditional metrics, providing a more comprehensive picture of a student's capabilities as both an academic and a citizen scholar. This multi-faceted approach to assessment not only aligns with the holistic educational experience advocated for citizen scholars but also prepares students for the complex, multi-disciplinary challenges they will face in their future roles as leaders and community members (Bryant, 2018).

Institutional partnerships: Encouraging educational institutions to build partnerships with community organizations, non-profits and governmental agencies as well as commercial organizations. These experiences enrich the educational journey by offering students a nuanced understanding of societal complexities and ethical considerations that are often absent from traditional curricula. Moreover, these partnerships can create symbiotic relationships: while students benefit from hands-on experience and a deeper understanding of community needs, partner organizations gain access to fresh perspectives, specialized skillsand a motivated workforce eager to make a difference.

Continuous professional development: Educators often feel overwhelmed by the shear volume of new things that they have to learn and to adapt to (Mantai and Huber, 2021). However, by maintaining an open-minded approach to continuous pedagogical improvement, embracing a caring attitude and a duty of responsibility to our students, we believe it is achievable to guide students towards their responsibilities as citizens in their societies and communities (Oberländer *et al.*, 2020), even when learning and teaching in large classes.

4.3 Limitations and future research

We are only using two examples to examine the citizen scholar framework and investigate its gaps. Further research could involve a wider sample of cases and look at other disciplines. In addition, it could also investigate pedagogical approaches other than those we have used in our study, such as service-learning or work-integrated learning.

The next step for our research is to work with students to investigate their perspectives on these ideas and understand how they see themselves operating in a VUCA world. We are particularly interested in further investigating their perspectives on the digital cluster and whether other specific competencies should be included.

Other areas for future research could build on emerging post-pandemic related issues that overlap with our ideas of citizen scholars. For example, how has the move to online platforms affected civic participation and community engagement activities? In addition, pressing issues such as war and climate change in this increasingly VUCA world have heightened existing inequalities; research may focus on how the citizen scholar framework addresses these issues in such challenging environments. Finally, in light of the heightened attention on mental health issues, research may examine the role of community engagement and social responsibility in supporting well-being.

5. Conclusions

This case study examined the ideas encompassed by the concept of citizen scholar and investigated how they present in a business education context. We have described some of the pertinent literature in this field, that aligns with the ideas of citizen scholars, namely the approaches of CBL, CL and EL. We looked at where these pedagogical approaches overlapped and differed from citizen scholar competencies to better understand where there may be gaps in the latter. Through reflection on two cases taught in business schools to contextualize the citizen scholar framework, we present some examples of each of the clusters and suggest some minor modifications to the framework. These include moving the element 'new literacies' into a fifth cluster, which we named digital literacy. This would also encompass other as yet unknown elements but possibly ethics and legal. We propose investigations into student perceptions in this area to define these elements with this new cluster. By purposeful design using the clusters and competencies of the citizen scholar framework in business education, we can graduate students who would be characterized by their ability to apply academic knowledge to enact meaningful change, to engage in critical dialogue with diverse stakeholders and to approach problems with both analytical rigor and ethical consideration.

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(The Appendix follows overleaf)

Appendix

Table A1.
Differences between project-based learning, problem-based learning and challenge-based leaning

Technique/ characteristic	Project-based learning	Problem-based learning	Challenge-based learning
Learning	Students build their knowledge through a specific task. The knowledge acquired is applied to carry out the assigned project	Students acquire new information through self-directed learning, using designed problems. The knowledge acquired is applied to solve the problem at hand	Students work with teachers and experts in their communities on real-world problems in order to develop a deeper knowledge of the subjects they are studying./It is the challenge itself that triggers the generation of new knowledge and the necessary tools or resources
Focus	Confronts the students with a relevant situation and redefines the problematic for which a solution is required	Confronts students with a relevant problematic situation, often fictional, for which a real solution is not needed	Confronts students with an open, relevant, problematic situation, which requires a real solution
Product	Requires the students to generate a project, a presentation or an implementation of the solution	Focuses more on the learning processes than on the resulting products of the solutions	Focus more on the learning processes than on the products of the solutions
Process	Students work on the assigned project so that their engagement generates products, and they learn as a result	Students work with the problem in a way that tests their ability to reason and apply their knowledge to be evaluated according to their learning level. Students analyze, design, develop and execute	Students analyze, design, develop and execute the best solution in order to tackle the challenge in a way they and other people see and measure
Teacher's role	Facilitator and project manager	Facilitator, guide, tutor or professional adviser	Coach, co- researcher, and designer

Source(s): Membrillo-Hernández *et al.* (2019, p. 1105)

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