

# Using digital pedagogies to combat imposter syndrome in first-generation students

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As first-generation students, the taxing feeling of questioning whether they belong to a university with imposter syndrome negatively impacts their experience. Imposter syndrome occurs when students ask about their abilities and whether they fit within the university. It can be difficult for students to overcome without support. Thus, there is a need to incorporate new approaches into the classroom setting, enhancing the learning experience and providing encouraging support. A solution is developing a structural model of resilience, which can be built using digital tools such as Padlet. These tools enhance the learning experience and foster a sense of belonging, making first-generation students feel more included and accepted. As educators and researchers, your role is integral in implementing these tools. By showing the students how far they have come since beginning their course and storing all their essential sources, you can empower them to take ownership of their learning. In addition, using tools that promote discussions encourages students to communicate, share their experiences, and develop a stronger connection within the group. This improves their mental well-being during their academic journey and enhances their effectiveness as an educator. Using Padlet can offer the students the opportunity to realise their achievements and recognise they do belong, thereby assisting in tackling that crippling feeling of imposter syndrome.

Keywords: first-generation, imposter syndrome, digital pedagogies, mental wellbeing, students

Clance (1985) defined the imposter phenomenon and imposter syndrome following clinical observations of individuals who experienced internal struggles with their achievements in the workplace. Clance (1985) explains it as an internal intellectual phoniness experience, whereby the person cannot celebrate or recognise their success. Henning et al. (1998) explain that it can result in the individual aiming for perfection. Research from Young (2011) demonstrated that imposter syndrome is also experienced by individuals who have re-joined education later, in their mid-life. The individual begins to question whether this is the right place for them and whether others pity them (Young, 2011). Joshi et al. (2018) describe imposter syndrome as those individuals hiding behind a mask, feeling as though they are fraudulent in the situation. This is not an isolated issue, as it affects a significant portion of the student population, including those who have returned to education later in life. As noted by Sakulku (2011), the prevalence of imposter syndrome among students is a cause for urgent attention.

As explained by Clance (1985), if an individual feels they need to conform to an internal of excellence, they cannot separate preformism from this; it can mean the individual is experiencing imposter syndrome. The individual may be pressuring themselves to achieve, and this may be the root cause of their future failure as they may result in being unable to cope, which then could result in mental health issues. As noted by Sakulku (2011), an estimated 70% of millennials have experienced imposter syndrome at least once. With the factor of COVID-19 with the grading system and the impact of social distancing, the next generations of the university may have a higher percentage.

Regardless of the stage of the journey as a student, there could be an experience of imposter syndrome. Imposter syndrome enforces that achievement is based on luck rather than achievements. Cokley et al. (2013) further explain that individual feels external factors are the root cause of their academic success; therefore, they remain in fear of exposure that someone will one day come forward and dismiss their achievement. It is a persistent feeling of inadequacy and internal self-doubt. It is difficult to overcome this internal battle. Therefore, piloting this project will showcase some platforms that can offer support and allow individuals to feel they can achieve. Thus, students should navigate their academic experience more positively. Negative experiences through education have a lasting impact on a student's experience. Consequently, it is essential to instil self-esteem and confidence and support students in achieving their goals. This is a suggestion and a necessity in the current educational landscape.

This article explores how to introduce digital pedagogies to support students in overcoming imposter syndrome, with a particular focus on the experiences of first-generation students. By establishing strategies that can improve the individual experience at university and mental well-being, we can instil hope and optimism about the future of education. The article will provide insight into the experiences of students using Padlet as a tool to tackle their imposter syndrome. Furthermore, it will showcase the benefits for students by reflecting on their experiences and establishing what areas they need to overcome. By highlighting the potential of digital pedagogies to improve mental well-being significantly, this article aims to instil hope and optimism about the future of education.

### **Mental health impact**

Students must develop a balance between their personal and academic life. Therefore, focusing on overcoming imposter syndrome is essential, as this can negatively impact all aspects of someone's life. The student's mental health needs to be at the forefront of addressing imposter syndrome. As noted by Kadison and DiGeronimo (2004), the severity of mental health concerns has been well documented in research focusing on first-generation students. Therefore, universities must offer

alternative services to address this issue rather than the current approach. This is a pressing need that must be addressed to ensure the well-being of our students.

Imposter syndrome can be linked to depression, anxiety and an individual adopting unhealthy coping strategies. The lasting impact of the questing themselves to establish whether they are good enough. It is essential to recognise the struggles that students face. Students may have come straight from college or sixth form following their grade results in the summer and may feel they need more preparation for the university experience. At university, there are fewer than-holdings as such. Whereby students are expected to develop critical thinking and the ability to write academically with supportive references. This approach may be new to the students, resulting in potential stress and concern about failing to meet the requirements. Although many universities offer introduction or taster sessions for students, they typically only provide a few days. There may need to be more to place the student at ease.

First-generation students have further challenges, and there could be an embedded sense of fear for the student. It causes this fear of failure of not only themselves but also their family and friends (Henning et al., 1998). The individual could then further express stress and demands upon themselves. In addition, first-generation students may need to meet the expectations of others. In addition, it is difficult for others not to understand these pressures, as they do not experience the same demands. Trying to express the student's concerns or experiences may be difficult. Individuals may feel their feelings are dismissed or need to step further to meet the expectations. Thus placing further pressure on them. Imposter syndrome often can result in the individual trying to go above and beyond and potentially drive them into overworking to prove to themselves and others that they deserve to be there. Unfortunately, this typically will lead to burnout.

Students may experience a feeling of being a “fish out of water”, mainly when they are first-generation and may have limited knowledge of what to expect when attending university. Henning et al.'s (1998) research showcased a strong connection between the psychological distress caused by the imposter feeling and the internal demand for perfectionism. This demand for perfectionism also leads to burnout. Imposter syndrome hides this, whereby the ongoing drive pushes the students further.

Students often adopt unhealthy behaviours to assist in their coping approaches to handle the stress of imposter syndrome and the demands they put upon themselves. Students can source comfortably in illegal highs to assist them in having the energy and sense of awareness to complete their assessments or required tasks. As well as other unhealthy coping approaches such as overeating and sourcing sugaring food to provide not only the energy but the comfort needed. Imposter syndrome can result in the individual feeling isolated, resulting in them sourcing alternative comfort, whereby they do not need to disclose their struggles.

The consequences of imposter syndrome are pushing yourself to demonstrate that you can do it all and that it is possible. Being a first-generation student may feel more intense, as an overwhelming need to showcase that they belong and are not inadequate. It is not easy to realise that imposter syndrome and burnout go hand-in-hand. As often, neither topic is discussed. As those, they are taboo. This project was all about ensuring that students felt they had a voice. An opportunity to share their experiences and realise they did not need to survive their course but reflect and see their journey. To recognise how well they are doing without their life feeling consumed by their course.

Hébert (2018) explains that first-generation students from low socio-economic backgrounds often draw upon their hardships to motivate them through their courses. However, this may result in further complications, as they may feel they must achieve higher expectations. In addition, the

potential financial difficulties students may experience need to be considered. In some cases, students may have limited financial support available or need to work additional hours to support them through their course. Furthermore, this could also add to the burnout experienced. As students try to balance their work and course and feel the sense, they need to master both to be successful. This is what imposter syndrome does. It creates a black void that the student attempts to fill with their time.

### **Introduction of digital pedagogies**

Trying to overcome imposter syndrome is challenging. Therefore, it was required to source initiative methods. Introducing digital pedagogies to aid students in sharing their ideas, collaborating, and reflecting on their achievements could be a helpful tool for fostering a peer-supportive environment. Schön (1987) noted that providing a learning environment that promotes problem-solving and continued learning encourages learners. Universities are embedding technology and digital pedagogies to spearhead their courses and encourage interactive behaviour.

A digital approach was the most effective when considering how to support and encourage students to see their achievements. Many digital pedagogies offer inclusivity and accessibility; for instance, Padlet has text-to-speech functionality and allows individuals to write their comments in different languages. An online platform like Padlet can enable students to organise their thoughts using a colour-coding approach. Individuals can embed images, text, and videos. It will enable students to personalise their learning style, reducing the pressure to conform and allowing creativity. Students can use pictures, videos, and creative layouts to express their ideas, fostering creativity and motivating them. Its user-friendly interface encourages active participation and exploration.

### **First-generation student experience**

As a first-generation student, navigating the different systems and understanding the expectations of their course and university can be difficult. In addition, Jenkins et al. (2009) explained that students may need more academic presentation skills and potentially have less knowledge of completing the enrolment. Colleges and universities must provide further support for students who may not know how to complete these tasks. Although many have supportive workers available, it is essential to offer additional check-ins for first-generation students, who may not have anyone check that all tasks are completed for their enrolment. First-generation students are more likely to live at home and not near campus, which can result in them feeling further excluded from social groups as they did not experience the residence halls (Pascarella et al., 2004). Therefore, they may feel they have not had the same experience as their peers, who may have bonded over their experience in the halls.

Engle and Tinto (2008) explain that first-generation immigrants may have to balance family responsibilities and employment to support themselves and family, which could impact their skill development. Stebleton and Soria's (2012) research reported a statistically significant impact on their non-first-generation participants of these factors, resulting in them developing inadequate study skill sets. Thus, they worked harder than their peers to meet their course requirements. Furthermore, Stebleton and Soria (2012) noted that their participants felt an increased risk of mental health issues such as depression and anxiety. Therefore prompting further risk of them disengaging with their course and leaving academia.

First-generation students may need help, including financial and support levels. Their family may have had limited exposure to higher education, which could further impact the student's knowledge and make the university experience further daunting. Thus, further support is needed to encourage

students to discuss these feelings openly. Furthermore, it is recommended that universities offer support services for first-generation students. Therefore, this will reduce imposter syndrome and the isolation the students may experience. Stebleton and Soria's (2012) research on academic obstacles noted that first-generation students experience more frequent obstacles than their non-first-generation peers.

Warburton et al. (2001) explain that first-generation students may feel less academically ready and may feel further pressure at the start of their course. This may be due to needing to be more financially prepared, whereby they may feel they need more support to assist them throughout their course. Universities can improve confidence by spending additional time helping students navigate their course pages and other digital platforms. Students may need help accessing class material and feel uneasy asking their lecturer or fellow students. This could result in additional isolation. Offering recordings of how to navigate around their online platform and allowing opportunities for drop-in sessions to support new students could reduce the stress first-time students' experience.

Turner (2020) expresses the need for future research on the effects of stress on first-generation students. The lack of research can impact the ability to provide service; therefore, more insight is needed to ensure that more tailored supportive services can be provided. Introducing tools that can build resilience and confidence can assist students in overcoming their hardships and imposter syndrome. Students may set themselves up for failure by raising the bar for themselves at an unattainable level. For instance, they may pressure themselves to achieve a distinction in their first assessment attempt. However, this may not be achievable for their first academic submission. Learning to develop an educational piece alongside learning theories or referencing techniques is a challenging feat. Therefore, upon potentially not achieving this, the student may feel disappointed, resulting in the reinforcement of imposter syndrome.

### **Introducing Padlet as a reflective tool**

Resta and Laferrière (2007) recommend integrating technology in classrooms, citing its ability to enhance cognitive performance, foster skills collaboration, and engage students in knowledge creation. They also note the flexibility in time and space that technology offers. Siu and Zhou (2017) advocate for active and collaborative learning opportunities.

Padlet, among many digital tools, is known for its inclusivity, as it does not require special training or experience (Weller, 2013). Siu and Zhou's (2017) research used Padlet to assist younger learners in their brainstorming. Padlet's visual bulletin board feature makes it an effective reflection tool, allowing individuals to share material (Siu & Zhou, 2017).

It is essential to allow students to celebrate their successes and establish what areas they need to work on. Everyone sometimes experiences self-doubt, which can be challenging to overcome when trapped inside one's head. Therefore, it was vital to source platforms for the students to allow them to build their confidence and share how well they are doing with others. In particular, first-generation students allowed their family and friends in on the ride of their academic journey. Using Padlet as a platform for reflection offers a powerful opportunity to combat feelings of imposter syndrome, particularly in educational and professional growth journeys. This online tool enables individuals to organise and articulate their thoughts, document experiences, and reflect on their progression.

Engaging the students in reflection can assist in combating imposter syndrome. It allows the students to establish their strengths and areas for improvement, helping them positively challenge themselves and develop and strengthen skills. By reflecting regularly, the students can see how far

they have come and begin to internalise their success. Therefore empowering them and reducing their imposter syndrome. It can create a recognition of self-worth, allowing them to reach self-actualisation. Using reflection models such as Gibbs or Rolfe's could assist in students developing more structured reflections (Phenwan, 2023). Developing reflection skills can help long-term learning, allowing individuals to establish what areas to work on and enhance their skill development (Lane & Roberts, 2022; McNeill et al., 2010). Encouraging a reflective approach can increase self-awareness and improve professional competence (Lane & Roberts, 2022).

By opening up the reflective process to include others – such as close friends, family, or colleagues – Padlet can bring additional benefits. Sharing insights on Padlet strengthens relationships and creates opportunities for others to celebrate their achievements alongside yours. These interactions foster a supportive environment where progress is acknowledged collectively, making personal growth a shared and celebrated journey. Contributions from others, whether through their encouragement or by adding their achievements, can create a collaborative narrative of success that highlights interconnectedness and mutual inspiration.

Imposter syndrome often isolates individuals, confining them to a cycle of self-doubt and internal critique. Involving others in this reflective journey can disrupt that cycle. Supportive voices from trusted people provide external affirmation and perspective, helping to counteract the negative inner dialogue. Allowing others to witness and share in the journey diminishes the isolating effects of imposter syndrome, replaced by a growing sense of confidence and self-worth. This collective process reinforces the idea that one's accomplishments are accurate and meaningful, ensuring that the narrative of progress is driven by authentic voices rather than self-doubt.

Digital tools like Padlet provide essential accommodations that bridge gaps in accessibility for students with disabilities. For example, text-to-speech software benefits individuals with dyslexia, while screen readers aid visually impaired students. These resources ensure equitable access to learning materials, fostering inclusion and reducing feelings of inadequacy. By addressing specific challenges through technology, students can focus on their strengths rather than their limitations. Combining personal reflection with community engagement transforms a solitary exercise into a collaborative effort. It enriches the reflection process with new perspectives and bolsters confidence by reinforcing achievements through the lens of those who value and support you. Over time, this approach fosters self-awareness and a sense of belonging and validation, making it a powerful tool for combating feelings of inadequacy and strengthening resilience; thus, overcoming imposter syndrome.

### **The approach**

The project was to investigate whether digital pedagogies, such as Padlet, could help reduce the impact of imposter syndrome on first-generation students. It was recognised that the project was not focused on eradicating it but on significantly mitigating it. The project targeted first-generation students, as they experience a potentially more intense experience of imposter syndrome. A diverse range of students was selected to provide a variety of experiences and to establish whether culture could influence the impact of imposter syndrome.

The students were required to create their own Padlet, in which they could input reflections on their achievements or areas they felt they needed to overcome. Prompts were provided to the students to assist in their reflection. Questions such as: What challenges do you think you overcame today? What successes have you had? What has made you proud today? What do you need further support on? Providing a range of questions allowed a reflection on the students' different experiences.

By creating a Padlet, the students showcased their achievements. They were encouraged to share their Padlets, which allowed them to comment on each other and share positive messages. Introducing their Padlets in real life will enable them to collaborate and build community. Therefore, it creates a safe environment for them to share their thoughts. To address the challenges first-generation students face with imposter syndrome, a structured approach was developed to integrate Padlet into classroom settings. This method aims to reduce imposter syndrome, build resilience, and foster a sense of belonging among students while enhancing their learning experience.

Students were encouraged to use Padlet to document their learning milestones and successes since the start of their course. This visual and chronological representation of their growth reinforced their sense of accomplishment. This allowed them to see their progression over a long time. They were encouraged to add points regularly. These included achievements within the classroom and comments from their assessments. As well as the educator, comments could be added to empower further. The educator focused on adding constructive feedback on the students and the group's accomplishments within the classroom, fostering a supportive learning environment.

A part of the project was to assist first-generation students in sharing with their family and friends and demonstrating the challenges they had experienced, allowing them to see their hardships. This could help build more assertive communication between the family and the students, as further clarity was present on the difficulties experienced by the students. As noted, many first-generation students felt their families did not see their struggles as they hid them. Their family only saw their grades or qualifications, not the progression itself.

### **Reflection on experience**

Padlet effectively documented and visualised personal and professional growth, creating a dynamic space to reflect on one's development journey. Its versatile and user-friendly platform enabled individuals to curate a narrative showcasing their challenges and achievements. The students documented moments of difficulty, lessons learned, and milestones accomplished, transforming Padlet into an interactive and visual representation of their growth over time. This reflective practice highlighted resilience and fostered self-awareness, allowing individuals to reframe setbacks as valuable learning opportunities (Relajo-Howell, 2020).

Through this approach, Padlet helped individuals counter the effects of imposter syndrome by emphasising their capabilities and progress. The ongoing narrative strengthened confidence and shifted focus from daily struggles to the broader trajectory of growth and success. The visual organisation of reflections on Padlet is unique in allowing users to step back and gain a holistic perspective on their development. By arranging their reflections visually appealing and interconnectedly, students could identify patterns of growth and resilience, seeing how their experiences are interconnected over time. This feature of Padlet, unlike traditional methods, provides a comprehensive view of how successes and struggles collectively shaped their journey, making their development measurable and deeply meaningful.

Padlet, beyond being a reflective tool, has the potential to empower individuals. It is a repository of personal 'superpowers'—a collection of experiences and milestones reinforcing self-worth. This ongoing reflection can help ground users, reminding them that their achievements are valid and cannot be diminished by self-doubt or external pressures. The platform encourages pride in one's identity and efforts, emphasising that value is not solely defined by successes but by the perseverance and dedication displayed throughout the journey. This sense of empowerment is a

powerful motivator for students, inspiring them to continue their journey of growth and self-discovery.

Comments from students using Padlet underscore its profound impact on their confidence, self-perception, and ability to navigate academic challenges, particularly among groups at higher risk of disengagement, such as dyslexic and first-generation students. For example, one student shared, "I did not realise I had done that—I have learned so much!" Another reflected, "I look at the Padlet to make myself feel better." These testimonials demonstrate how Padlet acts as a mirror, reflecting on students' accomplishments in a way that builds confidence and counters feelings of imposter syndrome. It also showcases the achievements that the students are achieving that they become unaware of. They become hidden among all the stresses the student is experiencing. Therefore, having a platform whereby the students can add these can be an excellent way to empower them in the future.

For first-generation students, the pressure to succeed is frequently compounded by feelings of isolation and self-doubt. Dyslexic first-generation students may face an even greater sense of inadequacy, balancing a lack of prior academic experience with the challenges of their disability. Padlet's role in visually showcasing their progress and learning is a tangible affirmation of their capabilities. One student remarked, "Seeing everything I have done in one place makes me feel proud – it reminds me that I am capable." This self-validation is a crucial antidote to imposter syndrome, helping students recognise their growth and encouraging persistence. Students with dyslexia felt they needed to prove themselves further, which placed them under additional stress.

Furthermore, Padlet's user-friendly and interactive interface fosters inclusivity by allowing students to engage with the material on their own terms. Unlike traditional methods, which can feel rigid and overwhelming, Padlet enables students to visualise connections between ideas and track their progress at their own pace. This flexibility reduces the cognitive load of learning for first-generation students unfamiliar with academic norms or expectations. It helps them feel more in control of their education. The platform's inclusivity is further enhanced by its variety of tools that are easy to use and material that can be uploaded, which encourages engagement and caters to diverse learning needs. One student highlighted this, saying, "It was so easy to use".

Using an online platform that allows students to comment on one another's work fosters a sense of community and belonging. Students often feel they cannot ask questions because they fear being judged. However, the psychological thought process impacts students' confidence to ask. Students added to each other Padlet to promote others' successes or thank them for their support. 'Thank you for asking that, it helped me!' This positive reinforcement from others can help the students feel they belong as they can help one another. This sense of belonging is crucial for students' emotional well-being and academic success, fostering a supportive community where everyone's contributions are valued.

"Great teamwork today." These little comments may not be considered much as such, but they are small tokens of appreciation. In a fast-paced world, we often do not take a moment to appreciate each other. However, it is a meaningful token of recognition and encouragement. In a fast-paced academic environment, where students often feel pressured and overlooked, these moments of positivity can have a profound impact. For students battling imposter syndrome or self-doubt, such peer affirmations validate their contributions and remind them of their value within the group. These micro-acknowledgements strengthen social bonds and promote a culture of kindness and support, which is critical for maintaining mental well-being in a demanding educational context. Padlet's ability to create a space for this exchange of appreciation and encouragement illustrates



how technology can play a vital role in cultivating academic and emotional resilience. It also fosters a culture of kindness and support, where everyone's efforts are recognised and appreciated.

Before the introduction of Padlet, a recommendation for diary updates and noting what they have learned today were adopted. Students were asked to reflect upon the learning objectives at the end of the classes. However, it was pointed out that students rarely looked back at these or, in some cases, did not make notes. "I would not look at this if it was on a paper". Therefore, introducing something more interactive so they can track and build on their experiences was considered more suitable. Students could lose their paperwork, resulting in their noted achievements being lost. Therefore, with an online platform, students can update over the years and revisit at any time without digging out their student workbooks. In addition, the online platform is always readily available. Therefore, they should ensure they have a positive platform of achievements available when they need empowerment.

The psychological boost provided by Padlet also addresses a key risk factor identified by Disabled Students UK: disengagement due to feeling unacknowledged or unsupported. When students see their achievements displayed in a Padlet, they gain a sense of belonging and recognition that is often missing from generalised support strategies. This is particularly important for first-generation students, who may only sometimes have access to informal networks of encouragement and guidance outside the university setting. Tools like Padlet can fill this gap, offering a structured yet empowering way to track progress and build self-esteem. "I feel so much better than I did". "I know I can do this", showcasing the positive reinforcement the Padlet can offer. "I have wanted to quit many times" – a typical response from students who feel that the pressures of the university were too much. The pressure of the imposter syndrome reinforces the negative thought process. Having something such as the Padlet offers reinforcement that they can achieve. This results in the students' negative thoughts being reduced and their thoughts refocusing.

While premium costs and IT limitations may hinder the adoption of more complex assistive technologies, Padlet demonstrates how even relatively modest investments in accessible tools can yield transformative results. By integrating Padlet into broader strategies for inclusivity – universities can create a supportive ecosystem that fosters academic success and personal growth. This approach helps first-generation students succeed in their studies and equips them with the confidence and resilience to navigate the broader challenges of higher education and beyond.

## **CONCLUSION**

It is vital in academia that individuals move away from negative self-talk. However, it is recognised that this is easier said than done. In conclusion, incorporating digital pedagogies supports students in self-reflecting and tackling their imposter syndrome. Recognition is crucial that first-generation students experience unique challenges and, therefore, may struggle with the pressures of academia, resulting in imposter syndrome. This understanding is equally essential for international students, who may face similar barriers due to the uniqueness of the transition to a new culture and environment. Offering the students opportunities to collaborate and share their experiences can build stronger relationships and allow them to recognise that they are not alone in this experience. Offering digital pedagogies could reduce isolation, boost self-esteem and give the students a space to document their development.

It is essential that educators not focus solely on academic achievement but on encouraging students to build self-esteem and confidence. Their role in this process is crucial and empowering. Thus giving them the tools to succeed. Further support is needed for first-generation students, offering more of an inclusive and empowering environment. Introducing more targeted programs that focus on

developing the student's skill sets could also assist in tackling their imposter syndrome. By feeling prepared, individuals may experience less self-doubt and not feel out of place. Jehangir et al. (2011) recommend introducing approaches to build confidence. Therefore, referring to digital tools like Padlet allows students to reflect on their skill development.

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