STUDIO DEN PROGRAMME

PREPARED BY

DR JUDITH ENRIQUEZ-GIBSON
DR FRAN TRACY

School of Education
LIverpool John Moores University
IM Marsh Campus. Barkhill Road
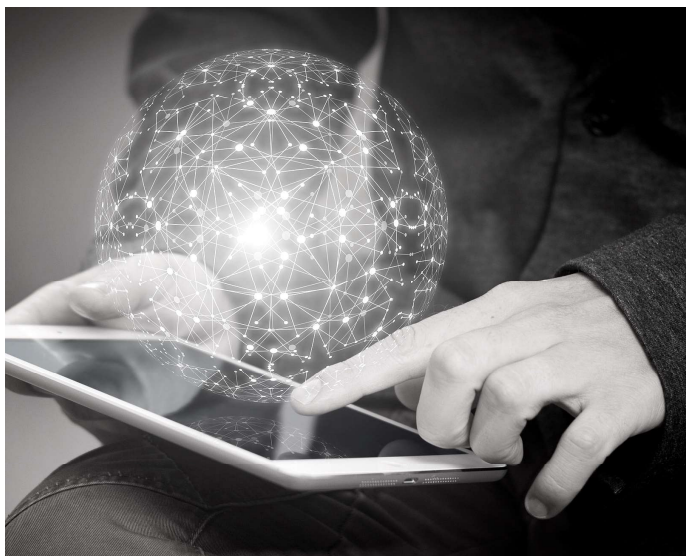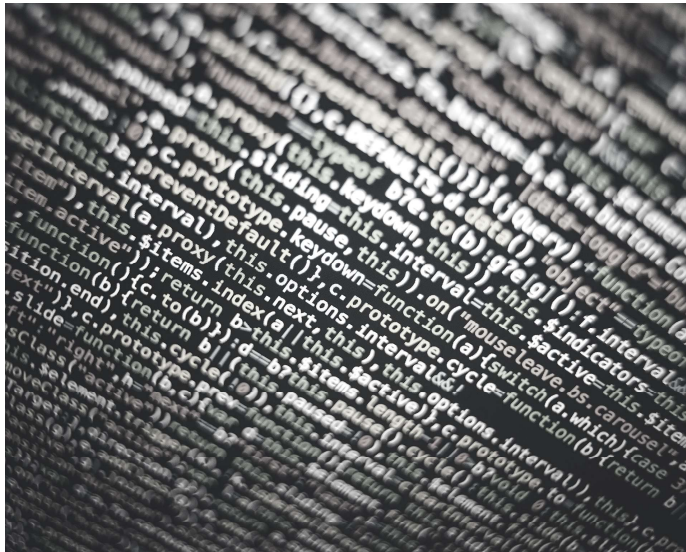Liverpool, L17 6BD

JULY 2019

IN BRIEF

WITH STRONG EVIDENCE TO SHOW THAT THERE IS AN URGENT DEMAND FOR SKILLS THAT ADDRESS THE DIGITAL SECTOR NEEDS, THERE IS A NEED TO LINK LOCAL INDUSTRIES WITH SCHOOLS THROUGH PROJECT-BASED LEARNING AND APPRENTICESHIP PROGRAMS. THE DEN PROGRAMME IS A SCHOOL-WIDE INITIATIVE THAT LISTENS AND RESPONDS TO THE THE CALL FOR EMPLOYABILITY SKILLS THAT ARE TRANSFERABLE AND WORK-READY FOR THE FUTURE GROWTH OF ECONOMIES AND COMMUNITIES.

THE STUDIO EMPOWERS STUDENTS TO MAKE A POSITIVE IMPACT ON OUR WORLD THROUGH THE INNOVATIVE USE OF DIGITAL TECHNOLOGY.

CONTENTS

EXECUTIVE SUMMARY

The Studio Digital Entrepreneurship Network (DEN) Programme is funded by the EDGE Foundation with the goal of empowering 11-19 year olds to own, develop and publish digital products. The School of Education, Liverpool John Moores University has been commissioned to evaluate the problem-based learning and digital development process cycle of the programme that has run over two years, from 1 April 2017 to 31 March 2019. This final report reviews the programme against its intended outcomes and timescales as detailed in the project documentation. It also assesses the impact of the curricular approach that has been adapted, mainly problem-based learning, in the programme as voiced out by some of the participating students. Lastly, some reflections and recommendations are brought forward for dissemination and potential reiteration or expansion of the programme's digital enterprise framework for youth engagement.

PROJECT AIM AND PLANNED OUTCOMES

The overall aim of the DEN programme was to build commercial acumen that would allow students to become creators and not just consumers of digital products. The programme was envisioned to enhance project-based learning at the Studio and to have a Merseyside digital network for young people.

METHODOLOGY

We have used a case-study methodology informed and analysed with programme documentation, product development showcases, interviews, staff meetings and a brief online survey of Studio students' views about the DEN programme. The programme evaluation sought to review the extent to which the planned outcomes have been achieved. It has also considered to what extent the project-based learning approach implemented within the DEN programme fits and complements the CREATE framework, an employability skills framework.

KEY FINDINGS

- Leadership – implementing a digital network requires a strong leadership and vision in the creative and entrepreneurial capacities of young people
- Ownership – implementing a digital network requires a collective and collaborative approach involving teachers, parents, employers and students. All stakeholders must have a transparent, shared vision and understanding of the network's value to ensure sustained involvement and advocacy.
- Virtual Presence – implementing a digital network requires an online presence that provides an alternative digital space for young people as creators and not just consumers of social media
- CREATE* - The development of numerous employability skills was noted by students: communication, teamwork, enterprise, applied skills, problem-solving skills and emotional intelligence. These included technical and soft skills that are key behaviours and aptitudes in the workplace.
- Practical Integration – through PBL and industry partnerships, the development of employability skills is based on real work challenges.

*CREATE stands for Communication, Relating to people, Enterprise, Applied skills, Thinking skills and Emotional intelligence (Studio Schools Trust, 2013).

DIGITAL ENTREPRENEUR NETWORK (STUDIO DEN)

"IT IS NOT THE STRONGEST OF THE SPECIES THAT SURVIVES, NOR THE MOST INTELLIGENT THAT SURVIVES. IT IS THE ONE THAT IS THE MOST ADAPTABLE TO CHANGE."

- CHARLES DARWIN

INTRODUCTION

The Studio Digital Entrepreneurship Network (DEN) Programme is funded by the EDGE Foundation with the goal of empowering 11-19 year olds to own, develop and publish digital products. The School of Education, Liverpool John Moores University has been commissioned to evaluate the project-based learning and digital development process cycle of the programme that has run over two years, from 1 April 2017 to 31 March 2019. This report presents the findings from year 2 (carried out in 2018) of the programme. Year 1 (carried out in 2017) report was completed in July 2018.

BACKGROUND

Studio Liverpool, which opened in 2013, is a creative and digital school for 14-19 years old. It delivers an education which combines technical and creative pathways with academic learning through practical and entrepreneurial real-life challenges. Students can study a technical or creative specialism. It has three pathways for sixth form students – analyst, technologist and creative - to follow individual career interest and trajectory. Located in the Baltic Triangle in Liverpool, it is strategically situated at the heart of the fast-growing commercial industries and startups in the digital and creative

sectors. Two important elements of the Studio curricular framework are the involvement of local employers in its local area.

This evaluation focuses on three elements of the programme: (1) network-building, (2) project-based learning and (3) school-industry partnership or employer engagement. Each of this element links directly with the planned outcomes of the DEN programme as 'frames of engagement' and provides the key pillars of its establishment and organisation. This is depicted in Figure 1.

In this background section of the report we outline the characteristics of the key elements and draw on the data and findings of the interim report in year 1 to further assess the extent to which a digital entrepreneur network hub is achieved through PBL, on the one hand, and employer engagement, on the other.

(1) In **network-building**, mentoring and coaching in Studio DEN were used as a dynamic collaborative process for effective project-based learning and communicative tool that takes students and project teams through the 6-stage development process described below.

(2) **Project-based learning** is a nontraditional education model that seeks to better prepare students for solving real-world problems and issues while teaching them what they need to know to succeed in school right now. It presents students with multi-faceted problems to solve. Such projects often engage students with complex learning techniques to succeed, including research, logical deduction, critical analysis and prototyping strategies. In the digital sector, such engagement exposes students to agile methodology. It encourages students to think independently and creatively, whilst also emphasising the value of teamwork.
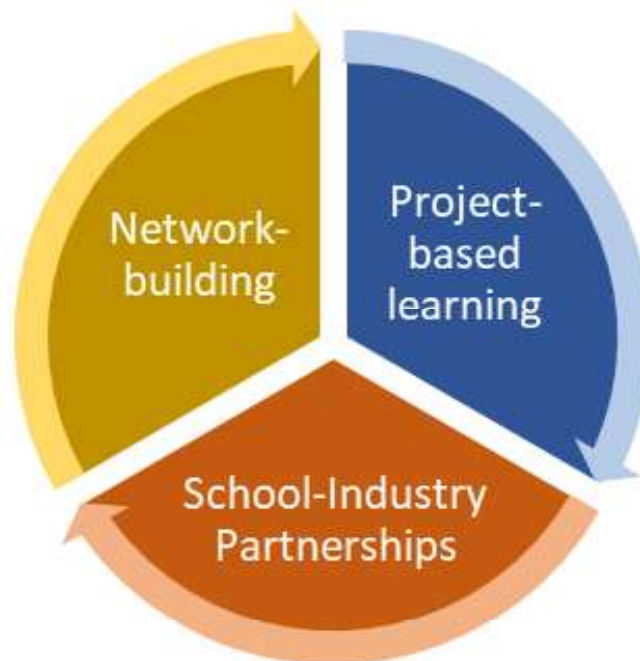

Figure 1: DEN Programme Frames of Engagement

(3) **School-Industry Partnerships** explore school and industry collaborations, as well as the need to improve teacher and student understanding of the demand for current employability skills that are much needed in the workplace. There are at least three types of engagement models, namely, one(school)-to-one(company, many(schools)-to-many(companies) and one(school)-to-many(companies) or one(company)-to-many(schools). Such partnerships, in the long run, help communities work together to solve local problems and maintain social cohesion and civic growth.

PROJECT AIM AND PLANNED OUTCOMES

The overall aim of the DEN programme was to create a network for young budding digital entrepreneurs through the development of students' commercial acumen that would allow them to become creators and not just consumers of digital products. The programme was envisioned to enhance project-based learning at the Studio and to have a Merseyside digital network for young people.

More specifically, the objectives of the programme were to:

1. Develop a model of sector engagement for 2,500 creative, technical and entrepreneurial young people that encourages their entry into digital and creative sectors
2. Support 1000 digital entrepreneurs (500 per year), including 30% girls, to create a marketable digital product
3. Establish a financially sustainable digital incubator and publishing and distribution company with a catalogue of commercially successful titles.

PROJECT METHODOLOGY

- We have used a case-study methodology informed and analysed with programme documentation, product development showcases, interviews, staff meetings and a brief online survey of Studio students' views about the DEN programme. The programme evaluation sought to review the extent to which the planned outcomes have been achieved. It has also considered to what extent the project-based learning approach implemented within the DEN programme fits and complements the CREATE framework, an employability skills framework. These were achieved through the following evaluative lens:
- 1)   How the DEN framework engaged different stakeholders – students, teachers, parents, employers?
- 2)   How the DEN framework implemented and used to shape the curriculum and activities to develop young people's employability and enterprise skills, including soft skills
- 3)   In what ways did Studio DEN facilitate partnerships between employers, industry mentors and the Studio students?

In year 1 (carried out in 2017-18) of the programme, we carried out a mixed-methods approach, including assessment of quantitative as well as qualitative aspects of the programme activities and outcomes. The following is a list of data collection carried out in the first year:

- Observation and informal discussion with project partners during the DEN project launch event to gauge expectations of the project and motivations for involvement.
- Observation of DEN taster events during The Studio School Open Evenings including informal interviews with students, parents and staff
- Meetings with the Sector Skills Champion and Principle of The Studio School

.

(CONTINUED...)

- Attendance at the DEN programme Showcase event on 28th June to assess the final outcomes of students projects
- Documentary analysis of students project posters, self-evaluations against school KPIs, learning plans and project management self-assessments
- Assessment of outputs of digital products for project groups
- Tracking a number of internal and external participants considering socio-economic and gender-based profiles.

In year 2 (carried out in 2018-19), we completed three focus groups with Year 13 students and two focus groups with Year 11 students. We also received 52 completed online survey responses, including access to the following sources of data:

- Meetings with the Sector Skills Champion
- Documentary analysis of Quarterly Project Progress Reports
- Observation at workshop and PBL sessions

OVERVIEW OF YEAR 1

FINDINGS, CHALLENGES AND ACTION PLAN

FINDINGS

The perceived benefits of employer engagement and PBL in the year 1 evaluation were sustained and strengthened in year 2. However, achieving a tangible outcome for the third objective of the programme proved to be very challenging and largely contingent upon other interlinked factors and at times conflicting goals.

- The Studio School KPIs align very well with the key goals of the DEN programme. These are active and inquiry-based indicators of engagement and development:

- Students engaged with project management using Agile methodologies, which included scrum meetings.
- Students recognised that teamwork is a key skill in project development and management. Reflection on teamwork was effectively facilitated through poster visualisation.
- Student-led project presentation at Open Days and Showcase event gave project teams ownership and motivation.
- Using Open Day events as spaces for DEN engagement proved to be effective in raising awareness about the programme and in attracting interests in the digital and creative areas from external students.
- The DEN programme has been strongly and positively influenced by engagement with external organisations, such as, the Liverpool Girl Geeks.

CHALLENGES

- Group sizes were often very variable and changes in group membership could cause disruption in project development.
- Belief in the project idea at the first stage of development proved to be a key weakness when groupings were initially formulated.
- Engagement in project work was not easily maintained throughout two terms, especially during assessment periods and before and after Christmas break.
- Engagement from external schools was not as positive as anticipated. There is a greater sense of competition amongst schools than collaboration in the region.

YEAR 2 ACTION PLAN

- To consider a more focused, shorter version of the DEN programme to maintain student engagement and motivation
- To develop resources based on the DEN programme, which will be publicly available online for external users
- To formalise mentoring arrangements based on initial sector-school engagement during masterclasses, open days and workshops
- To support students from the Studio and beyond to become commercially astute in production and publishing.

STRUCTURE OF THE REPORT

After the executive summary and introductory section, the next section discusses the benefits and emerging impact of PBL and the implications of the DEN framework on developing a digital hub for young entrepreneurs through a school-industry nexus. This is followed by a concluding section with some recommendations for further development of Studio DEN through

YEAR 2 - SHIFT HAPPENED

OUTCOME-FOCUSED VERSUS STUDENT-FOCUSED

Halfway through the project, in its second year and to address some of the challenges in year 1, the Studio repeated its journey through project-based learning to adapt and make students fully aware of the 12 UN Sustainable Development Goals. Project teams were briefed to address any of the UN goals in their product development. Consequently, the third planned outcome was not met which relies more on network-building and school-industry partnerships. Though the model for sector engagement designed and fully implemented in year 1, this was not adequate in itself to sustain a network framework that targets both schools and industries in the local region. The establishment of a digital incubator and publishing company requires more than experts or industry sector engagement and presence in the Studio. School-industry partnerships require a well-defined bridging space for adequate and collaborative support and clear pathways of transition from school to industry. Over time, the network itself can be the resource for the digital incubator and publishing company that was envisioned for this programme. This has been a pressing challenge in year 1 as competition instead of collaboration was the focus of engagement with other external schools outside the four schools that are part of the Northern Trust in the Liverpool City region..

OUTCOME: SKILLS OR PRODUCT

PBL, which is at the heart of the Studio School principles, has positioned the digital network at the periphery of skill development. Student engagement with the DEN programme as a network needs more time to meaningfully materialise and develop beyond masterclasses and workshops. Survey data suggests that students were not aware of the DEN programme, but were fully aware of PBL. This may suggest that computer-mediated communication and presence via the Studio DEN website must exhibit and model publishing and media production. In addition, creating a public repository for school-industry partnerships and resources could be prioritised to represent visibility and recognition of staff, student and sector engagement. This could easily become a student-led project. Having said this, we could not underestimate the differences in professional backgrounds, workplace exposures and priorities of school targets and assessments and industry deliverables and timescales.

Nonetheless, this was a missed opportunity that is counter-intuitive to the Studio School principles that emphasise and prioritises the active and agentic student ownership of the programme. Scaffolding students through the stages of development has obviously guided the PBL element of the DEN implementation strategy in this case. Extending constructivist approaches to the network-building process could potentially establish a community of budding DEN entrepreneurs beyond school or year level engagement.
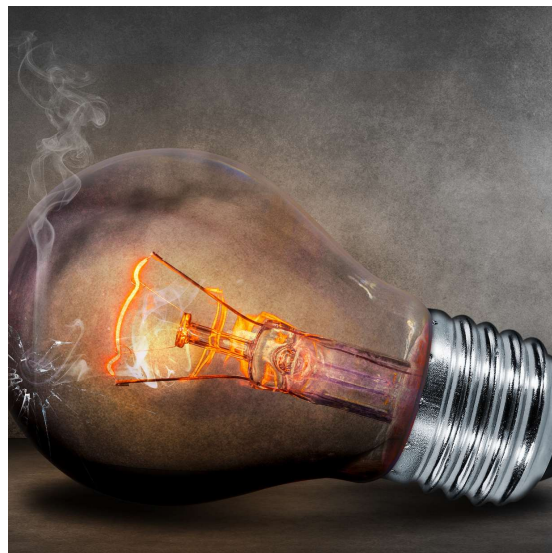
EMERGING DEN

## IMPACT OF PBL AND DIGITAL SECTOR ENGAGEMENT ON YOUNG PEOPLE
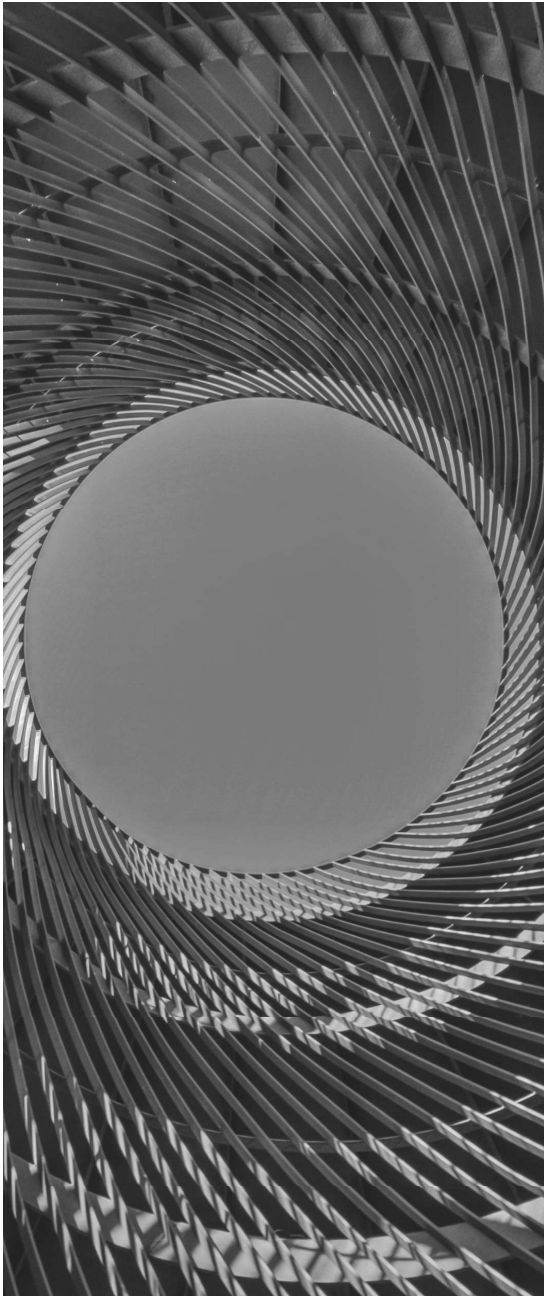
Overall, students valued the technical and creative skills they have acquired and appreciated the enterprising importance to their learning, knowledge and professional development and future employability. Students' survey responses also reflected the participants' awareness of the various foundational and advanced set of skills that are beneficial to them in the future. More specifically, students valued that their respective projects enhanced their communication, team-working and interpersonal skills. Moreover, some students identified specific technical and soft skills they have acquired during their project development. Some of these include:

VIDEO EDITING, ANIMATION, TEAMWORK, COMMUNICATION SKILLS, PROJECT MANAGEMENT, SELF-STUDY, TIME MANAGEMENT, NETWORKING, RESILIENCE, PROBLEM-SOLVING, CREATIVITY, PERSEVERANCE, LISTENING, FILMING, RESEARCH SKILLS, INDEPENDENCE, ANGER MANAGEMENT, ADAPTABILITY, HELPING OTHERS, SCRIPTING, PATIENCE, PROGRAMMING, SCRIPT WRITING

DIGITAL ENTREPRENEUR NETWORK (STUDIO DEN)
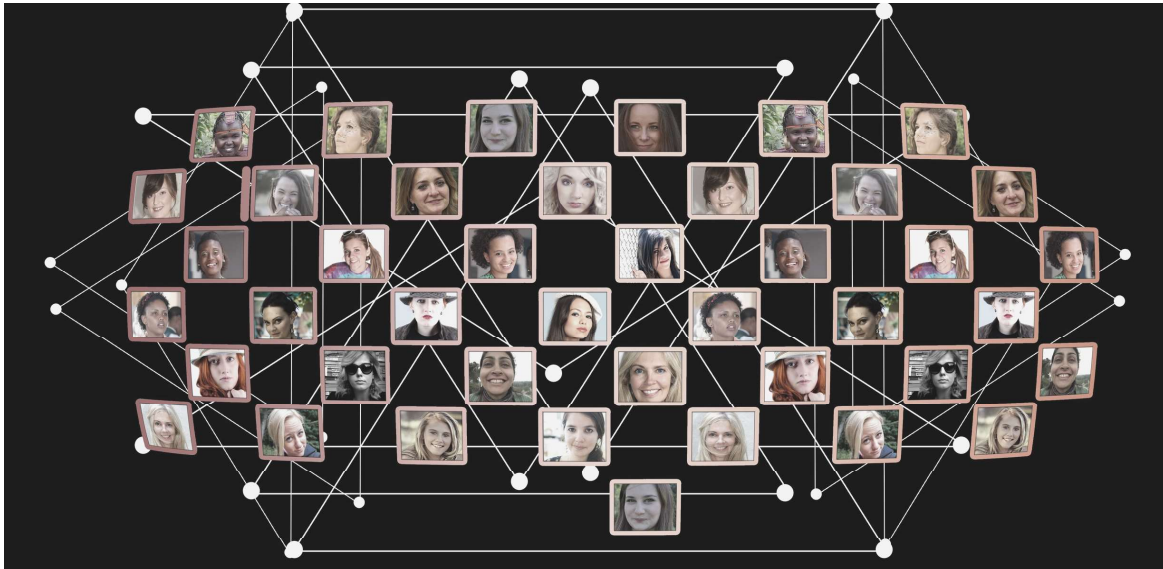
CONTINUED...

Students also shared their attitudes towards PBL, noting that they were most satisfied when there was a range of possible project ideas to choose from and they had the flexibility to decide what to work on. Some comments in the survey indicated that the focus on UN goals in the second year of the project limited their choices. The decision to limit the scope of project development was an active response to year 1 findings that some students were overwhelmed by the open nature of the idea generation and prototyping stages that a scaffolded and well defined UN goals were deemed to be useful and most relevant to facilitate a more focus and sustained engagement as there are many global examples to rely on in a global and networked manner.

The impact of PBL on the professional development and employability skills of Studio students is a strong evidence of the school ethos and commitment to using PBL as the dominant form of pedagogical approach. PBL prepares students to become digital entrepreneurs by:

- developing their work-ready skills, including communication, teamworking, resilience and self-confidence
- having a real-life opportunity to develop and produce a tangible project output or product and design artefacts through the 6-stage development process using Agile methodologies that well established in the digital sector.
- having industry exposures and potential school to industry transition and career opportunities.

IMPLICIT APPROACH

CREATE IN THE DEN

The DEN programme has made no explicit reference to the CREATE framework (Studio Schools Trust, 2013; Robson, et al., 2018**) and yet embedded within it was an aim to cater particularly to students' employability skills through problem-based and practical approaches to learning and skills development. The DEN programme supports both curriculum and PBL activities by following a six-step development cycle from idea generation to product launch based on software and product development life cycle which is widely used in digital enterprises (see Figure 2).

The implicit approach to DEN focused on developing employability skills through teaching and learning/mentoring without referring to the programme explicitly. The explicit element of the programme was the project-based learning approach, which is at the heart of the Edge Foundation and Studio School principles. As such, the explicit use of PBL was intended to be the core strategy through which the digital and entrepreneurial acumen and employability skills were scaffolded, developed and assessed. However, this strength has also fragmented the

Figure 2 – 6- Stage Development Process

Each student had to work in a team, generally between the sizes of 4-6 in year 2 (with bigger group size in year 1). At each stage of the process, each project group received input from industry leaders through masterclasses, workshops and mentoring sessions. At the end of each DEN year, all projects were launched and showcased led by students at an annual event that took place in the month of June. In these events, all stakeholders attended. Students presented their digital artefacts or products to industry professionals as well as their friends and family.

programme which needed a dedicated and coordinated team effort across the school.. Without adequate guidance and support, PBL could potentially direct students into complex routes and time-consuming deliberations and group negotiations when faced with the multiple target outcomes and messy realities of the daily activities of their school and home commitments.

CONCLUSION & RECOMMENDATIONS

LESSONS FROM THE DEN

1. The Studio DEN as a network project is a collective effort that does not fit into the 6-stage development process and Agile methodologies used in the effective implementation of PBL at the Studio. Principles of networked mentoring and apprenticeship in both network-building and school-industry partnership development must be identified and embedded in the school ethos.
2. Networking principles must emphasise community collaboration. This is something the Studio is evidently successful. To transform this key strength into a network that bridges the divide between school and industry requirements and expectations, including the promotion of gender equity, further steps must be taken.
3. The Studio has an in-depth understanding and well-established relationship with various industries in the Baltic Triangle area that have benefited the skill development, prospects and career opportunities of its students.

MUTUAL PARTNERSHIP AND PBL APPROACH TO TEACHING ARE THE MAIN PILLARS THAT CAN BRING ABOUT THE DIGITAL ENTREPRENEUR NETWORK PROFESSIONALLY AND PEDAGOGICALLY WITH THE FOLLOWING RECOMMENDATIONS:

1. Ensure the members of the school senior leadership team take a strategic lead and support the development of Studio DEN beyond PBL and play a significant role in growing and progressing network-building through school-industry partnerships
2. Ensure that engagement activities with the community and business sector have dedicated and timetabled sessions to encourage ownership of tools and methods of development and project management
3. Invest in a dedicated and coordinated team with knowledge of how the industry sector works and how the school works who can work consistently on collaborative cross-curriculum activities and school-industry projects and are guided by clearly identified networking principles
4. Invest in maintaining an up-to-date and live external and public presence online that exhibits student project development, engagement and achievements
5. Develop a student repository to keep track of engagement activities and projects with faculty and industry partners.

The above steps can further raise awareness and maintain active engagement of the future young creators and entrepreneurs of the creative and digital sector of the Liverpool City Region.

FINAL EVALUATION REPORT

**VISIT THE PROGRAMME
WEBSITE AT
HTTPS://STUDIODEN.UK**

ANY
QUESTIONS?

E-MAIL US AT
J.G.ENRIQUEZGIBSON@LJMU.AC.UK/
F.E.TRACY@LJMU.AC.UK

JULY 2019