Reflections on our first semester of Vertically Integrated Projects at the University of Galway and plans for upscaling our programme

VIP Consortium Meeting
Georgia Institute of Technology
11th May 2023

Dr. Oonagh Meade
Lecturer in Transdisciplinary Research
Deputy Director of VIP at the University of Galway
Student Demographics

- Gender:
  - Female: 59%
  - Male: 39%
  - Other/gender prefer not to say: 2%

- Generation:
  - 1st Generation: 31%
  - 2nd+ Generation: 69%
Designing Futures

Designing Futures is transforming the University of Galway student experience.

Designed to empower, educate and support students to lead better lives and succeed in the complex world we live in. Designing Futures will ensure University of Galway's position as a leader in innovative, student-centred and enterprise-engaged education internationally.

The University of Galway's Designing Futures programme is funded by the Government of Ireland and the HCI Human Capital Initiative.
Designing Futures In Action

Designing Your Life
Undergraduate Undenominated Arts and Science Students (initially)

- Student Success Coaches
- Personalised University Experience
- Professional Skills Pathway
- Suite of Transdisciplinary and VIP modules

Designing with Others

- DEAN OF STUDENTS AWARD
- Design Sprints
- Innovation Sandbox
- Student Internship Programmes
- Empathy Lab
- Summer Accelerator Programme (Start 100)

Designing With Systems, Project Management & Evaluation
Vertically Integrated Projects

VIP students earn 5ECTs per semester by working with research teams to advance their research efforts in transdisciplinary research projects. Students can take up to two VIP modules.

<table>
<thead>
<tr>
<th>Teams</th>
<th>Academic PIs, graduate student mentors, approximately 5 students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students</td>
<td>Students from a range of levels and disciplines</td>
</tr>
<tr>
<td></td>
<td>Returning students take on additional responsibilities</td>
</tr>
<tr>
<td>Project Based</td>
<td>Students work together to advance the project, taking on different roles/responsibilities</td>
</tr>
<tr>
<td></td>
<td>Weekly teaching and support from VIP lecturer</td>
</tr>
</tbody>
</table>
VIP Module Structure at the University of Galway

VIP 1 - Introductory Module - Learning Outcomes

1. Describe the VIP programme and its relevance to your development.
2. Plan workload in order to deliver research tasks on time and within budget.
3. Interact with others to understand their research-related requirements.
4. Record work in a way that meets professional research standards.
5. Present research in a variety of forms to a professional standard.

VIP 2 – Leadership Module - Learning Outcomes

1. Take responsibility for leading a team to complete a series of research-related tasks that interface with a larger research project.
2. Play a leading role in planning team workloads in order to deliver research tasks on time and within budget.
3. Play a leading role in team Interactions with others to understand their research-related requirements.
4. Take responsibility for ensuring that the research team records their work in a way that meets professional research standards.
5. Lead the team to present their research in a variety of forms to a professional standard.
VIP Assessment

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual Contribution to Oral Presentation</td>
<td>10%</td>
</tr>
<tr>
<td>Individual Reflection on Skills</td>
<td>50%</td>
</tr>
<tr>
<td>Team Report</td>
<td>40%</td>
</tr>
</tbody>
</table>

https://www.universityofgalway.ie/designingfutures/aboutdesigningfutures/frameworkforstudentdevelopment/
Principal Investigator Recruitment

Promotion campaign September-November 2022

• All staff e-mail
• Newsletter feature
• Website updates
• Twitter promotion
• Individual meetings with Principal Investigators
• EOI form for staff
• 13 VIPs developed
Student Recruitment for AY22/23 Semester 2

Promotion campaign September-November 2022

- Presentation at student induction week
- All student e-mail to relevant programmes (science and psychology)
- Twitter promotion
- Information sessions for students
- EOI form + manual registration of students (module not open to all)
- 10 students registered on two projects

University of Galway Vertically Integrated Projects - Student Interests Form

Thank you for your interest in Vertically Integrated Projects (VIPs).

The first step in taking part in VIP is to fill in this form. We will use the information you provide to register you on the VIP module and to connect you with one of the ongoing VIP projects. You can learn about the projects here: [Link]

In order for us to pair you up with the right VIP, please fill in this form to tell us about you and your research interests. This will help us to place you in a relevant Vertically Integrated Project team for the semester.

As a reminder, Vertically Integrated Projects (VIPs) are research projects addressing important societal challenges in which undergraduate students work in teams under the supervision of academic principal investigators.
VIP in Focus – Bench to Bedside

PI: Dr Sinéad King

College: College of Arts, Social Sciences, and Celtic Studies

This project focuses on basic and translational neuroscience, discovering biomarkers and translating them into novel interventions for people suffering from neuropsychiatric and neurodevelopmental conditions. There are opportunities within the project to work on further developing a patient and public involvement community for this research, interviewing participants, working with industry and preparing research publications.
VIP in Focus – Worlds of Sound

PI: Dr Denis O’Hora & Dr Eoin King

Colleges: College of Arts, Social Sciences, and Celtic Studies & College of Science and Engineering

This VIP explores the physics of sounds, our subjective experiences of sounds and our responses to sounds. We are particularly interested in investigating environmental sounds, how they promote or inhibit wellbeing and the role our experience of sound plays in these effects. Some sounds help us relax, but some distract and annoy. We are particularly interested in the sounds of traffic, wind turbines, the waves and different forms of music. We also hope to identify Zones of Tranquillity in our cities. The work of this VIP will feed into an international research initiative coordinated by the IEA (International Energy Agency), in which Dr King and Dr O’Hora are collaborating with world leading researchers to accelerate the development and deployment of quiet wind turbine technology and consolidate understanding of wind turbine sound emission, propagation, and ultimately its perception by residents. Student opportunities include developing focus group discussions, ethics applications, research proposals, recruitment, mapping sound experiences, press releases, testing apps, videos, podcasts, and blogs.

www.iea-wind.org/task39
## Introductory VIP class structure 22/23

Class timetable developed to address our learning outcomes, PI requests and students suggestions for skills they would like to learn.

<table>
<thead>
<tr>
<th>Week</th>
<th>Class Topic</th>
<th>Meetings with Pls</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tuesday 10(^{th}) January</td>
<td>VIP module orientation</td>
</tr>
<tr>
<td>2</td>
<td>Tuesday 17(^{th}) January</td>
<td>Preparing for team work with Denise McBride, Student Success Coach</td>
</tr>
<tr>
<td>3</td>
<td>Tuesday 24(^{th}) January</td>
<td>Project management - Working effectively with your team members and Principal Investigators</td>
</tr>
<tr>
<td>4</td>
<td>Tuesday 31(^{st}) January</td>
<td>Introduction to research design</td>
</tr>
<tr>
<td>5</td>
<td>Tuesday 7(^{th}) February</td>
<td>Developing research presentation skills</td>
</tr>
<tr>
<td>6</td>
<td>Tuesday 14(^{th}) February</td>
<td>Facilitating Patient and Public Involvement (PPI) in research</td>
</tr>
<tr>
<td>7</td>
<td>Tuesday 21(^{st}) February</td>
<td>Assessment 1 – Group Presentation in class time</td>
</tr>
<tr>
<td>8</td>
<td>Tuesday 28(^{th}) February</td>
<td>Team troubleshooting and problem solving with Denise McBride, Student Success Coach</td>
</tr>
<tr>
<td>9</td>
<td>Tuesday 7(^{th}) March</td>
<td>Finding and appraising evidence</td>
</tr>
<tr>
<td>10</td>
<td>Tuesday 14(^{th}) March</td>
<td>Academic and Reflective Writing</td>
</tr>
<tr>
<td>11</td>
<td>Tuesday 21(^{st}) March</td>
<td>Reflection on skills and research careers</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Individual meetings?</strong></td>
</tr>
<tr>
<td>12</td>
<td>Tuesday 28(^{th}) March</td>
<td>Wrap-up, feedback and planning</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Assessment 3 due – individual reflection</strong>&lt;br&gt;<strong>Friday 31(^{st}) March @ 17.00</strong></td>
</tr>
</tbody>
</table>

**Assessment 2 due – Team report**<br>**Friday 24\(^{th}\) March @ 17.00**
Student Experiences

What students liked:
- meeting students from other disciplines
- learning the nuts and bolts of how research works
- hands-on experience
- tailoring of class timetable
- enhancing skills
- preparation for further study

Student challenges:
- Timetabling across Colleges/courses
- Group work opportunities
- Understanding/negotiating expectations with PI

"Participating in the VIPs as a psychology student has been immensely beneficial to me. Not only has it given me the opportunity to gain hands-on experience in seeing the conduction of research in action, but it has also allowed me to develop important skills such as critical thinking, problem-solving, and communication. Through working on a research project, I have learned how to formulate research questions, design outreach methods, and interpret findings. Furthermore, being involved in research has given me a deeper understanding of the scientific process and has helped me to appreciate the complexity and nuance involved in conducting research. It has also shown me the great importance of involving the public and spreading information about research in as many ways possible. Overall, participating in the VIPs has not only enriched my academic experience but has also prepared me for future career opportunities in the field of psychology."

"As a student of the first ever VIP programme in University of Galway I can firmly say that this module has exceptional potential. It combines learning with practicality. It does this by teaching the processes behind a research project, and then as a student you get to implement those processes in the same semester. At this module's core, students become part of a transdisciplinary team headed by one of the university's Principal Investigators. Anyone who has any interest in academic research should take an opportunity like this with both hands. I have learned more about the world of academic research from this one singular module than every-other module I've taken combined."

University of Galway
Preparing for 23/24

Student recruitment
- Capacity for approximately 65 students on 13 projects
- Expansion approved to new programmes/subjects
  - BSc Business Information Systems
  - BSc Geography and Geosystems
  - Performance and Screen Studies
- Potential need to expand to further subjects (e.g. Law)

Preparation for module delivery
- Shared learning event for new PIs – 29th May 2023
- Adapt approach based on evaluation led by Dr Connie O’Regan

VIP Projects 2023/2024

<table>
<thead>
<tr>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Worlds of Sound</td>
</tr>
<tr>
<td>Bench to Bedside</td>
</tr>
<tr>
<td>Sustainability advancement in SMEs</td>
</tr>
<tr>
<td>Democratising Knowledge through Comedy</td>
</tr>
<tr>
<td>Figuring out Y</td>
</tr>
<tr>
<td>Recycling of E-waste</td>
</tr>
<tr>
<td>Theia Eye Care</td>
</tr>
<tr>
<td>Data and Artificial Intelligence for the Knowledge Society</td>
</tr>
<tr>
<td>Theatronics: the business of theatre, 1732-1809</td>
</tr>
<tr>
<td>Songs of Travel</td>
</tr>
<tr>
<td>Futures of Law: Robots or Humans?</td>
</tr>
<tr>
<td>Cardiovascular Health for All</td>
</tr>
<tr>
<td>Understanding Minds</td>
</tr>
</tbody>
</table>
Longer Term Planning

Key challenge - resourcing the continuation of VIPs after current funding cycle

Plans:
- Seek funding to support VIP programme
- Expansion to new undergraduate programmes
- Develop opportunities for postgraduate and PhD students to join VIP modules and get credit
- Develop international co-operations with VIP partners for student placements
Thank you

E-mail: Oonagh.Meade@universityofgalway.ie
Twitter: @oonaghmeade
Linked In: linkedin.com/in/oonagh-meade-16530a258

https://www.universityofgalway.ie/designingfutures/personalisedstudentjourney/verticallyintegratedprojects/