dice

DIGITAL COMMUNITY
ENGAGEMENT ACCELERATOR
FOR STUDENT LEARNING
AND SOCIO-ECONOMIC IMPACT

BEST PRACTICES REPORT

Table of Contents

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Education and Culture Executive Agency (EACEA). Neither the European Union nor EACEA can be held responsible for them.

INTRODUCTION

This report presents the results of a collaborative effort to identify and organise examples of good practice in the implementation of Digital Community Engagement (DICE) within higher education. As part of Work Package 4 (WP4), DICE project implemented a structured and collaborative process to pilot the DICE Digital Accelerator in higher education. It began with the DICE Piloting Plan (A1), establishing clear procedures and KPIs, followed by a three-day training workshop (A2) for educators.

From February to April 2025 (in A3), nine educators from Technical University of Kosice (Slovakia), University of Alcalá (Spain), and IUL Telematic University (Italy) ran nine different actions in their courses focused on digital community engagement (supported by mentors from UAH and overseen by TUKE, IUL and UAH. Activities included work on project management, marketing, online information, or translation for migrants, among others. All the information from the activities, feedback, and evaluation of the piloting has been compiled and analysed in the **Digital Accelerator Training Report**.

In addition to the development of these DICE activities, educators were asked to reflect on how they applied the Accelerator's methodology and to highlight which elements of their work could be considered effective or innovative practices. Their input was collected using a structured form, available online at: https://piloting-bestpractices.paperform.co.

Through this process, we received a total of 63 submissions, covering activities developed across all phases of the DICE Accelerator. In addition to reflecting on what had been done, the form also prompted educators to contribute ideas for potential future implementations. From this material, we compiled a total of 198 good practices. After identifying thematic overlaps and similarities, we organised these examples into 12 distinct clusters based on common focus areas and pedagogical strategies.

Each cluster can be interpreted and implemented independently of the others. Educators are encouraged to explore the sections most relevant to their teaching objectives and context,

allowing for a flexible and modular approach to integrating DICE-inspired practices into their curricula. The twelve clusters are visually summarised in the diagram below, providing a quick reference to help identify the most suitable areas of interest.

This collection is particularly valuable for educators and instructional designers who are planning to integrate Digital Community Engagement activities into their own courses. Each cluster includes an overview of the good practices, a discussion of their relevance, and a visual map of alignment with the DICE Accelerator phases. These visuals make it easier to determine when and how a practice might be applied during the course design and delivery process. To support practical implementation, each cluster also includes a tailored Educator Checklist, offering guiding questions and criteria to help teachers adapt the practices to their own contexts.

Best Practices Cluster 1: Real-World Learning in Professional Environments

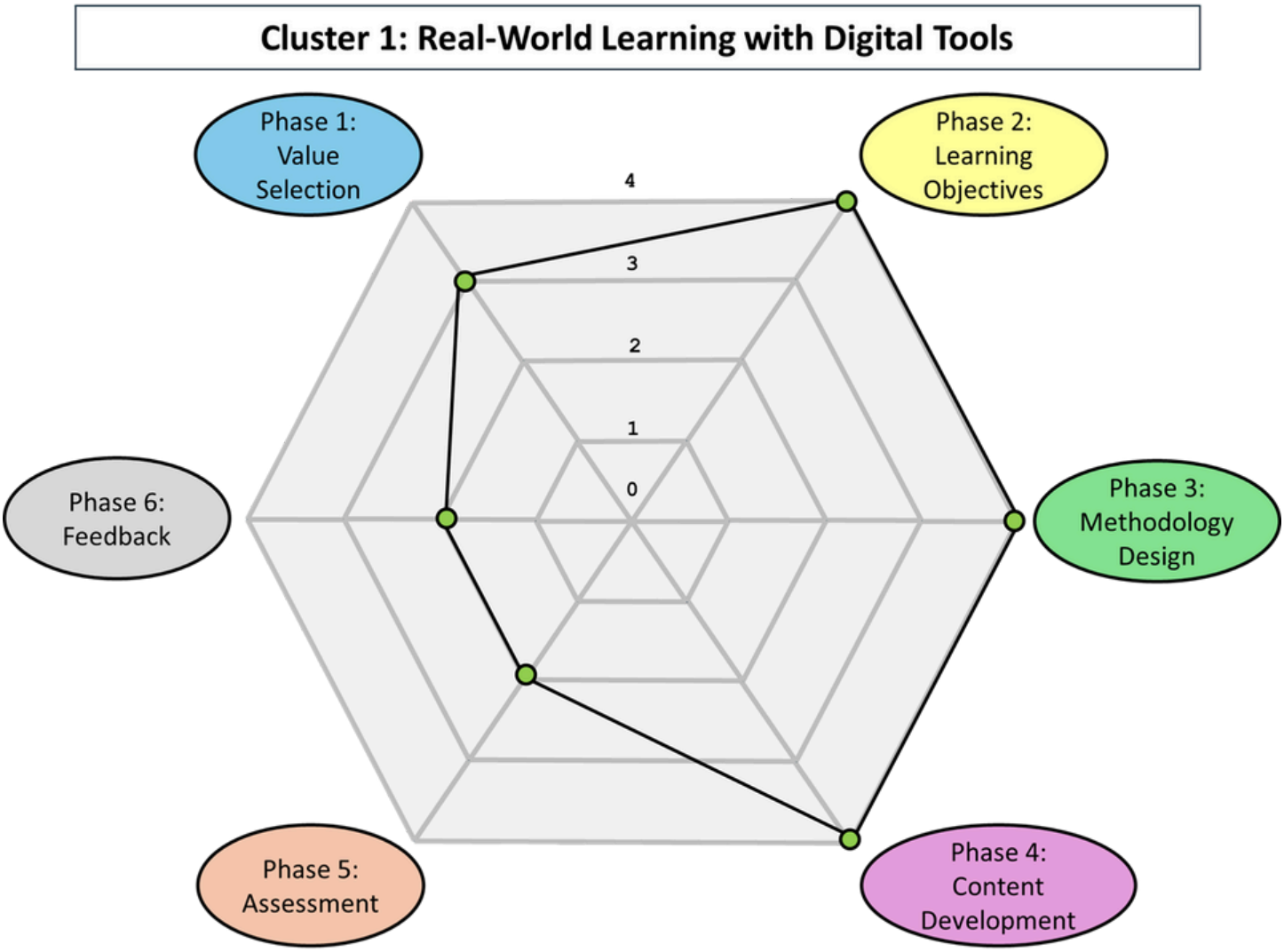
One of the most impactful themes emerging from the DICE pilot phase is the integration of real-world learning experiences. This cluster captures a wide range of practices focused on integrating real-world relevance into DICE activities. So, connecting education with the professional world, the world of startups, educators allowed an opportunity for students to "do" theoretically, which, for decades, they only learned in theory. Innovative practices like multimedia awareness campaigns or e-learning for adult learners, as well as web-based application within incubators, allowed students to become participants in social and economic innovation rather than solely recipients of knowledge. Applications such as Padlet, mapping systems and podcasting tools were all employed to create links with these communities, to listen to their stories, and to facilitate digital civic participation.

Testimonial

"In the 'Computer Science and Multimedia Communication Technology' course, the activities were designed to enhance digital community engagement by focusing on real-world applications and collaboration with external stakeholders, particularly startups within the IUL Virtual Incubator. We involved students in analysing and designing technological solutions for startups, bridging academic learning with industry needs."

Students working on live projects with startups or collaborating with them could apply their learnings to real-world needs. This link enhanced the motivation and sense of ownership of students and also developed digital-entrepreneurial skills, including content creation, platform solution, and problem-solving, regarding industry-relevant issues. Another consideration for some instructors was ensuring training objectives were connected to the immediacy of real business requirements, as this would enable students to acquire the "right skills" to work effectively and have the relevance of their academic pursuits emphasised. Projects were evaluated not just on theoretical merit, but also on the practicality of being implemented in the world, which nurtured a mentality toward impact and innovation.

The following diagram outlines the connection between this cluster of best practices and the different phases of the DICE Accelerator.



Looking forward, this best practice cluster provides a compelling guide to the design of online community engagement in the future. Incorporating value-based design, robust business stakeholder involvement and hands-on, experience-based project work into the fabric of the courses can encourage students to engage in meaningful learning experiences that are both academically challenging and relevant to real-life contexts. When teachers are able to infuse rich collaboration, use of technology, and authentic, community-relevant problems into their instruction, it creates a vibrant learning environment for students and benefits society. As higher education is developing towards the digital context and societal relevance, these examples demonstrate the value of linking theory and practice, engaging stakeholders and generating action in society.

Checklist for educators

- ☐ Do we include over the course a partnership with a real organisation?
- ☐ Are we using digital tools to create and perform the activity?
- ☐ Is our assessment based (at least partially) on real-world utility?
- ☐ Do we present students' results to real users to ensure relevance?

Best Practices Cluster 2: Community Participation and Social Impact

One of the significant strengths of digital community engagement is its potential to bridge the gap between universities and society, which enables students to become active civic agents, not just students. The best practices in this cluster demonstrate how teachers have intentionally connected their course content, learning objectives, and pedagogical methods to the wider needs of the community and society. From mapping local services and encouraging digital volunteerism, to co-design contextually driven projects and public presentations, the practices support peer-led learning where sustainability, inclusion, and justice are at the heart.

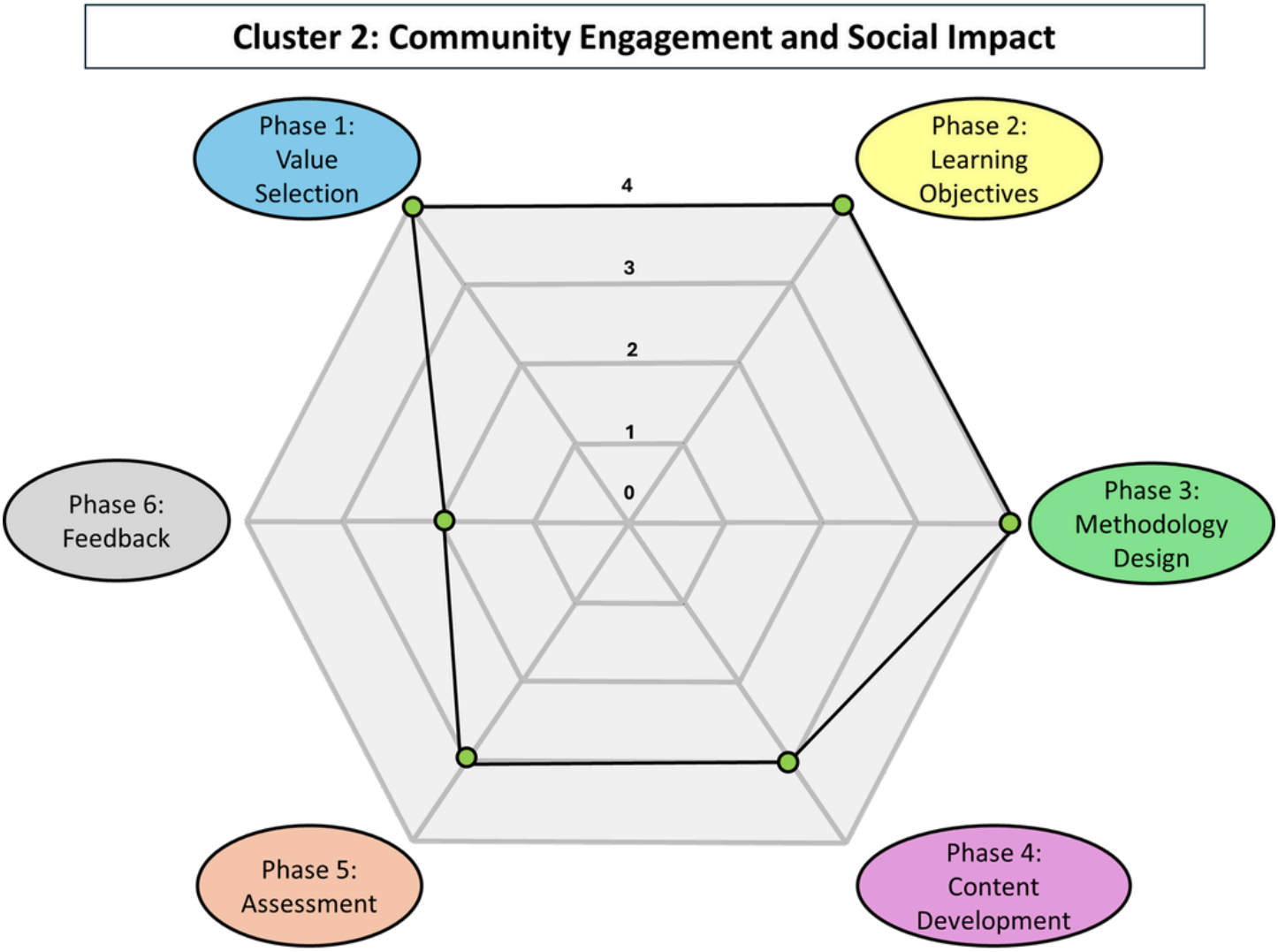
The courses delivered in this mode are not just about content delivery. They bring open and inclusive learning environments to life as students use critical reflection to explore real-world issues such as accessibility, resilience, and social equity. Resources such as Padlet, community mapping and peer critique are employed to encourage collaboration and engage students with a range of stakeholders from local organisations to those who have been dispossessed. The result is a learning experience where social impact is not an afterthought, but rather the primary objective, allowing students to connect digital skills to authentic community change.

Testimonial

"The course should optimally transfer to service-learning using digital technology, as we aim for real-life impact on communities. All of the students were able to successfully create projects, around 70% of them started conversations with the communities in focus. 2 student groups have really established cooperation with communities (creation and implementation of a social media campaign for a community garden; creation of a small online hub with a local NGO focused on regional resilience). "

Moreover, these practices and others also emphasise the reciprocity and community validation. Through outside inputs loops, public sharing of outputs, and channels for iterative adjustment in response to real world-feedback, students not only learned to respect the opinions of their stakeholders, but to seek out those stakeholders and their opinions. This is even more impactful in those projects where students co-design solutions with external actors (e.g., NGOs, local governments or social enterprises), thereby making the educational experience place-based and socially responsible.

Below is the association of this group of best practices with the different phases of the DICE Accelerator.



For future DICE initiatives, these lessons emphasise the necessity of framing community engagement not as an "add-on", but as a legitimate component of course design and assessment. It is important to emphasise that community involvement is not just an optional extra on the fringes, but rather an integral part of the learning process. This helps students build a sense of civic responsibility, relationship skills, an ethical mind, and make concrete contributions to actual social problems.

Checklist for educators

- [ ] Have we identified a real community or societal need that students can engage with meaningfully through the course?
- [ ] Are we using digital tools to support civic engagement and social awareness in a participatory and inclusive way?
- [ ] Does our course include opportunities for students to collaborate with community partners or receive feedback from external stakeholders?

Best Practices Cluster 3: Value-Based Learning and Ethics

Nowadays, one of the most important purposes of education should be to help students acquire a strong ethical sensibility and a sense of personal vocation. When students are given the opportunity to consider their values, social responsibilities, and ethics as technology users through reflection, and to tackle technology-related ethical issues, the result is a higher level of engagement in learning. This approach links learners to real-world significance and moral reasoning.

During the DICE pilot, several educators successfully embedded tools like the Value Maps and Value Finders into their course designs. The purpose of this exercise was to identify which values were most important to students and to the communities they served. This facilitated reflection and discussions around topics such as accessibility, social inclusion, and community resilience while keeping the focus on the benefits that each actor will gain from the DICE activities.

In addition, the practices identified in this cluster also indicate the possibility of ethical inquiry being integrated at each phase of a DICE activity. From the early conceptual stage and team collaboration, physical prototypes and communication solutions, to final assessment and feedback, students are invited to reflect on how their projects contribute to society or its possible downfall. Whether it's horizontal peer learning, civic projects, such as Wikipedia editing, and design thinking for social campaigns, learners are asked to consider the social life of their contributions.

Testimonial

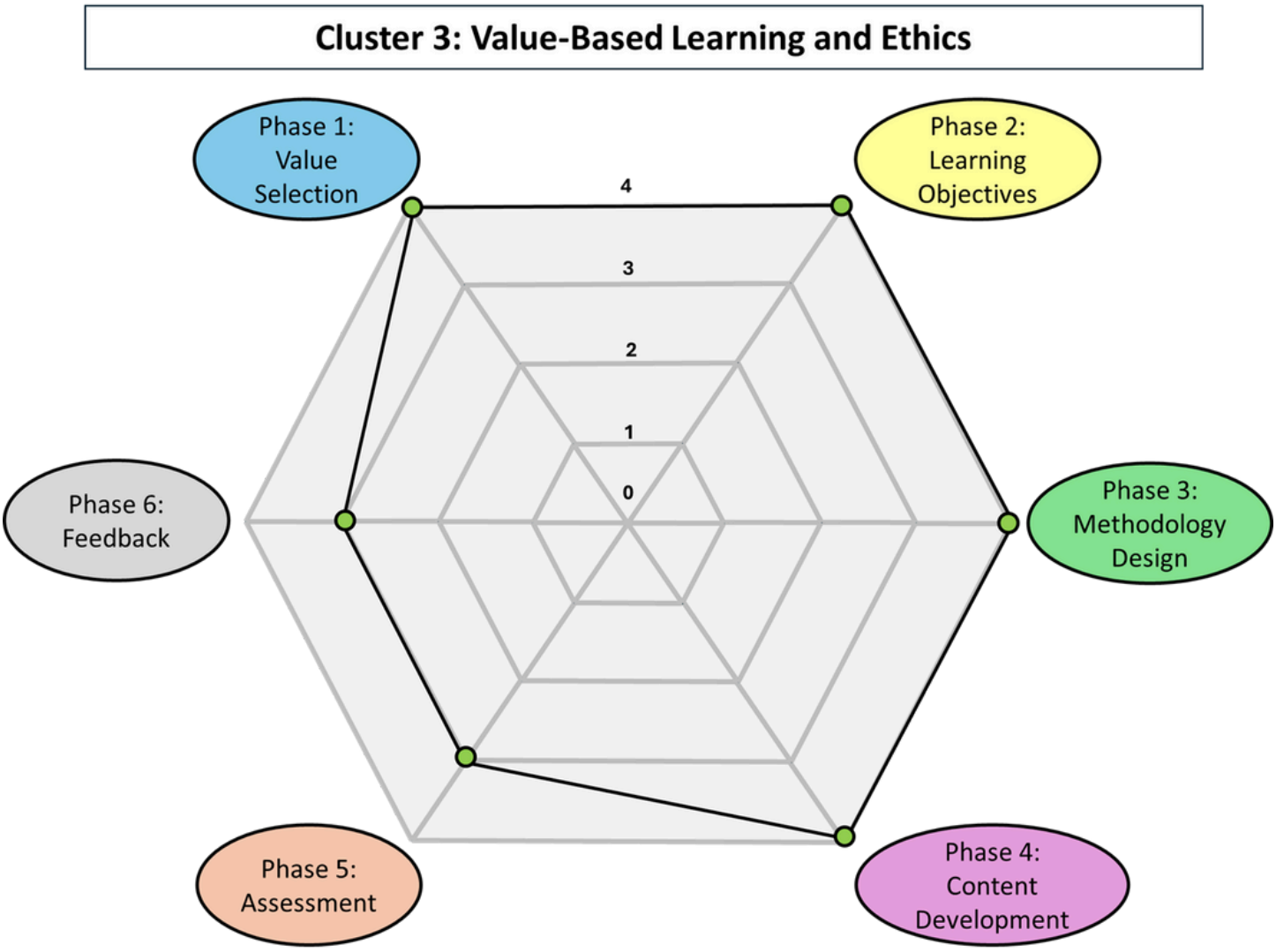
"In the initial phase of the Marketing course, students were engaged in a value selection process that focused on identifying meaningful social or community issues they cared about. This served as the foundation for later marketing strategy development. To make this phase more engaging, we introduced Digital Brainstorming and Polling."

"Using tools like Mentimeter and Padlet, students collaboratively identified values they associate with responsible marketing and societal impact. This created an open, interactive space for expression beyond the traditional classroom setting. We used application of low-barrier tools for inclusivity and accessibility, and also early exposure to the role of values in shaping marketing narratives."

A crucial dimension of this cluster is the intentional collaboration across diverse groups and contexts, including intergenerational learning and peer exchange across disciplines or life experiences. Many of the reported practices emphasised the value of bringing together

teams and groups from different ages, backgrounds, and social realities. This exchange drives empathy, breaks the mould and promotes a deeper understanding of difficult issues in society. By being in communities and studying topics that are marginalised, students are exposed to realities that diverge from their experiences and the typical course of their lives. This process has been shown to broaden world views and deepen ethical compass, criticality and capacity to co-design socially considerate and sensitive solutions.

The diagram below presents how these best practices correspond to the various stages of the DICE Accelerator.



By integrating ethical orientation and value-driven reflection into the learning process, educators make sure that all actors involved in the DICE activity (communities and students) understand the value and benefit that brings to them. For students, it is especially important not only to enhance students' civic and digital literacies, but also to prepare them to be more responsible digital citizens and community leaders. This cluster demonstrates that when students understand the *why* behind their digital actions (beyond the technical *how),* they engage more authentically and contribute more meaningfully to the communities.

Checklist for educators

- [ ] Have we used DICE Value maps and DICE Value finders to define the benefits of my DICE activity?
- [ ] Have we invited students to explore the Value Maps so they can define how DICE activities fulfill their own needs?
- [ ] Does our course invite students to explore underrepresented social issues or marginalised communities they may not be familiar with, fostering ethical awareness and inclusion?
- [ ] Are our assessments and course reflections designed to measure ethical reasoning, civic responsibility, and value-driven decision-making?

Best Practices Cluster 4: Creativity and Digital Storytelling

Creativity is an essential driver of innovation, communication, and meaningful learning, especially within digital community engagement. The practices in this cluster illustrate how, by engaging in the cycle of media production, educators can support students in using multimedia tools, digital storytelling and design thinking to express ideas, address challenges in their communities and speak to multiple audiences. Regardless of whether the medium is podcasts, video campaigns, Wikipedia entries, or interactive content, students are taught to experiment, collaborate, and craft messages that are meaningful. In this manner, creativity evolves from a mere skillset to a conduit for civic engagement and change.

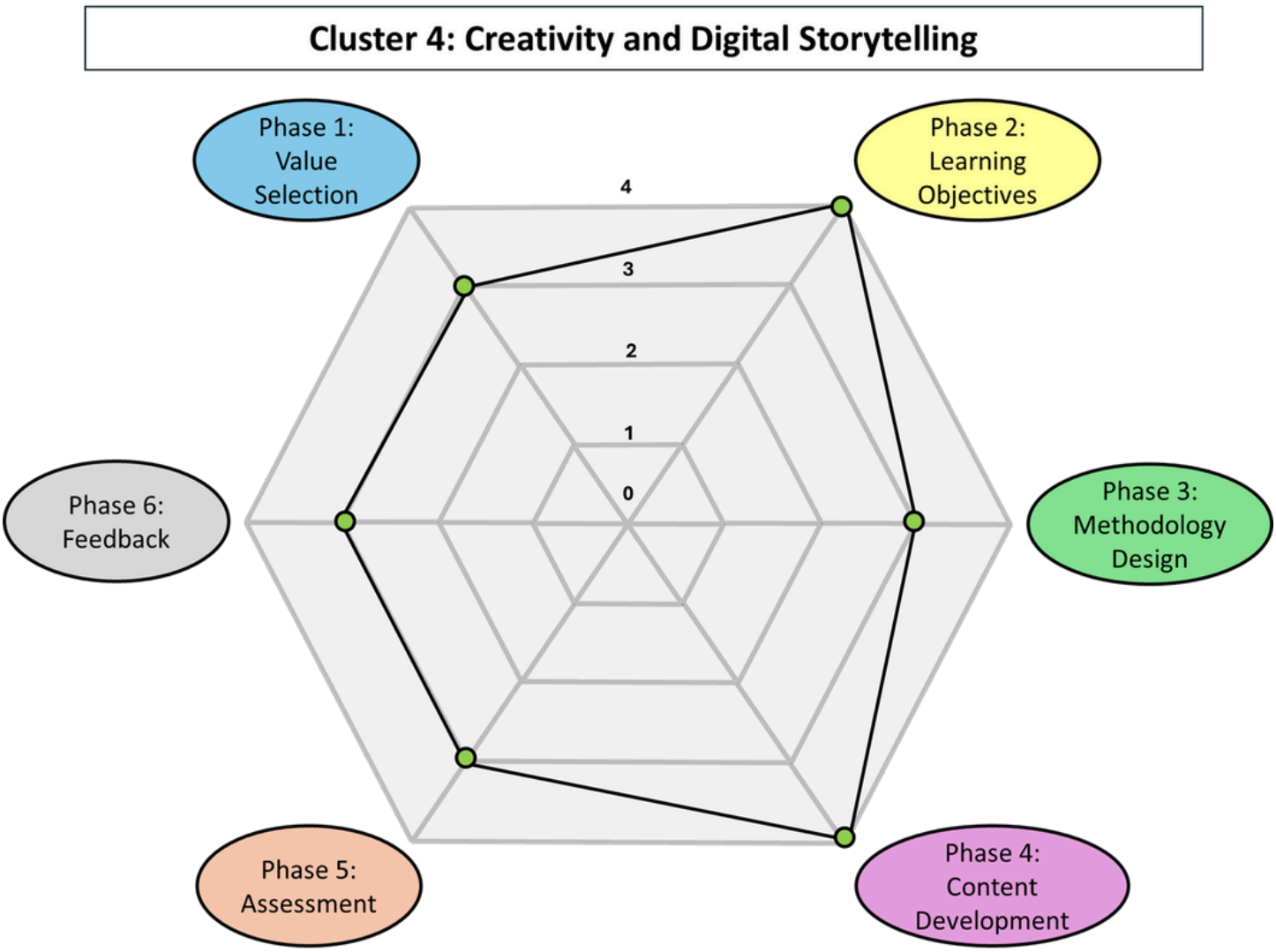
Students learn how to translate complex social themes (e. g., sustainability, education, inclusion) into stimulating formats, tailored to various audience groups by working on real-world problems, via storytelling and digital production. The experience is designed to allow students develop the technical expertise required to use software like Audacity, GIMP, and Storyjumper. In addition, it aims to inculcate values such as critical thinking, empathy and collaborative problem solving. For instance, on projects producing Wikipedia entries or multimedia for startups, students were challenged to articulate information appropriately to their audience at the same time as finding ways for them to collaboratively work in teams (mirroring a professional digital environment).

Testimonial

"The main methodology involved using digital tools to create podcasts, digital books, and multimedia content that directly engaged with social and educational issues. For instance, students designed a podcast discussing the role of artificial intelligence in education and its potential to innovate and connect communities. This project integrated theoretical knowledge of digital tools with creativity and communication skills. These activities required students to apply design thinking principles in developing content that was both socially relevant and digitally engaging."

This best practice cluster fosters a space where learners connect personal creativity with public purpose, thereby producing content that is academically rigorous and socially relevant. These activities also boost student motivation and engagement, particularly when their work is published or shared in open-access platforms, allowing them to see the real-world relevance and reach of their creations.

The following diagram details the relationship between this set of practices and the distinct phases of the DICE Accelerator.



For future digital community engagement projects, this cluster advocates the integration of creative methods and production tools into course design. Given the freedom and structure to create, reflect and share, students have more ownership over what and how they learn, and a greater connection to the communities they wish to support. Imagination and storytelling connect learning and engagement more than ever, and they are critical to the development of students who can think critically and communicate efficiently in a digital culture.

Checklist for educators

- [ ] Have we included opportunities for students to create digital content (e.g., videos, podcasts, infographics, digital stories) as part of their DICE projects?
- [ ] Do we encourage students to collaborate in teams to brainstorm, co-create, and refine their digital narratives or multimedia products?

Best Practices Cluster 5: Digital Entrepreneurship and Innovation

Digital entrepreneurship and innovation are critical preparations for the rapidly changing economy and digital age, something that higher education needs to embrace. This best practice cluster is characterised by a focus on engaging students in hands-on activities that connect with startups, incubators and authentic business needs. These activities are facilitated through the use of digital tools and the orchestration of project-based learning to develop applied skills. The construction of web applications, the execution of digital marketing campaigns, and the creation of e-learning modules for startups, for nascent business, provide students with the opportunity to engage with real-life applications of leveraging technology to address challenges encountered by entrepreneurs.

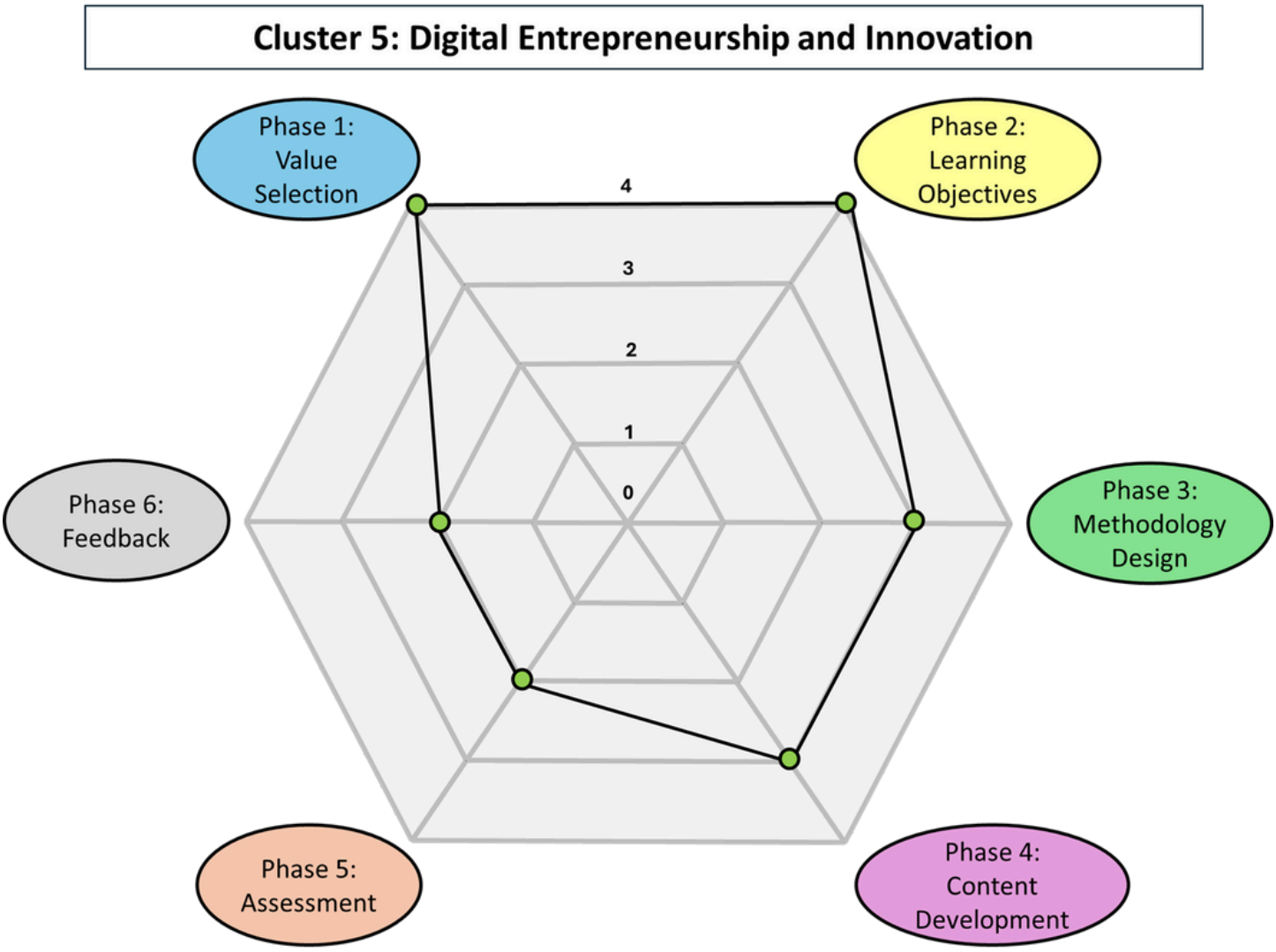
A characteristic of these practices is the close interplay between academic content and actual startup processes. Students practice using cloud computing, machine learning, and user-centred design in real-world scenarios and regularly provide that feedback to entrepreneurs and their teams. And such interactions also help youngsters transition from theoretical knowledge to practical applications in digital and business areas. An experience that enriches learning and that grants them confidence in creating novel content or ideas. Thus, students are agents of business and social innovation.

Testimonial

"We designed a collaborative approach where students worked with startups to create digital solutions. This involved using e-learning tools and technologies, such as Moodle and Google Classroom, to engage with the startups and share their insights. It is a best practice in DICE courses as it blends academic learning with the development of digital skills and entrepreneurial competencies."

It is important to note that this cluster places significant emphasis on the role of entrepreneurial mindset development. In the end, this category underscores the importance of cultivating an entrepreneurial mindset. The course design tailored to startup expectations pushes students to be creative, solve problems collectively, and take initiative in ambiguous situations. The following experiences have been identified as conducive to the development of essential entrepreneurial skills: flexibility, strategic thinking, and risk-taking. Furthermore, students are able to comprehend the societal value of innovation, especially when engaging with startups that are addressing issues such as sustainability, education, and social impact.

This diagram overviews the identified conections between this cluster of best practices and the DICE Accelerator phases.



For other DICE projects in the future, these practices offer a roadmap for how to intertwine entrepreneurial work with civic commitment. By helping startups and social enterprises integrate digital tools into their companies, students are making a tangible impact on the local economy and community development and gaining training that is directly relevant to their careers. Moreover, the integration of social entrepreneurship with DICE generates a robust synergy, where learning leads to innovation and community upliftment becomes a pathway for digital transformation.

Checklist for educators

- [ ] Have we incorporated digital tools or activities that support the development of entrepreneurial and technical skills?
- [ ] Have we designed activities that simulate professional innovation contexts?
- [ ] Do we include a reflection on how digital innovation can generate both economic and social value in community settings over the course?

Best Practices Cluster 6: Use of Digital Tools and Skills Development

The integration of digital tools into community engagement activities is no longer optional; it is essential nowadays. The best practices in this cluster demonstrate how educators can use a variety of digital platforms, apps and collaborative tools to help students develop more practical, applied digital skills. These are authentic tech-integrated tasks that simulate real-world work, like e-learning design, podcast creation, and content creation for actual startups. The acquisition of digital skills in the context of socially relevant learning environments has been demonstrated to facilitate the development of technical fluency in students, concurrently engendering a tangible social impact.

This cluster helps to explain how digital tools can act as a catalyst to improve DICE activities, civic participation, and reflective learning. Resources like Padlet, Moodle, Canva or Google Docs are not only effective tools for the creation of content, but also facilitate planning, collaboration and peer assessment. Digital tools such as Google Calendar and Slack support students' real-world team communication skills. Furthermore, journaling and video reels have been shown to promote metacognitive awareness and long-term engagement. Evidence suggests that using the same tools as professionals in the digital workspaces during student projects enhances the students' abilities to successfully enter the workforce.

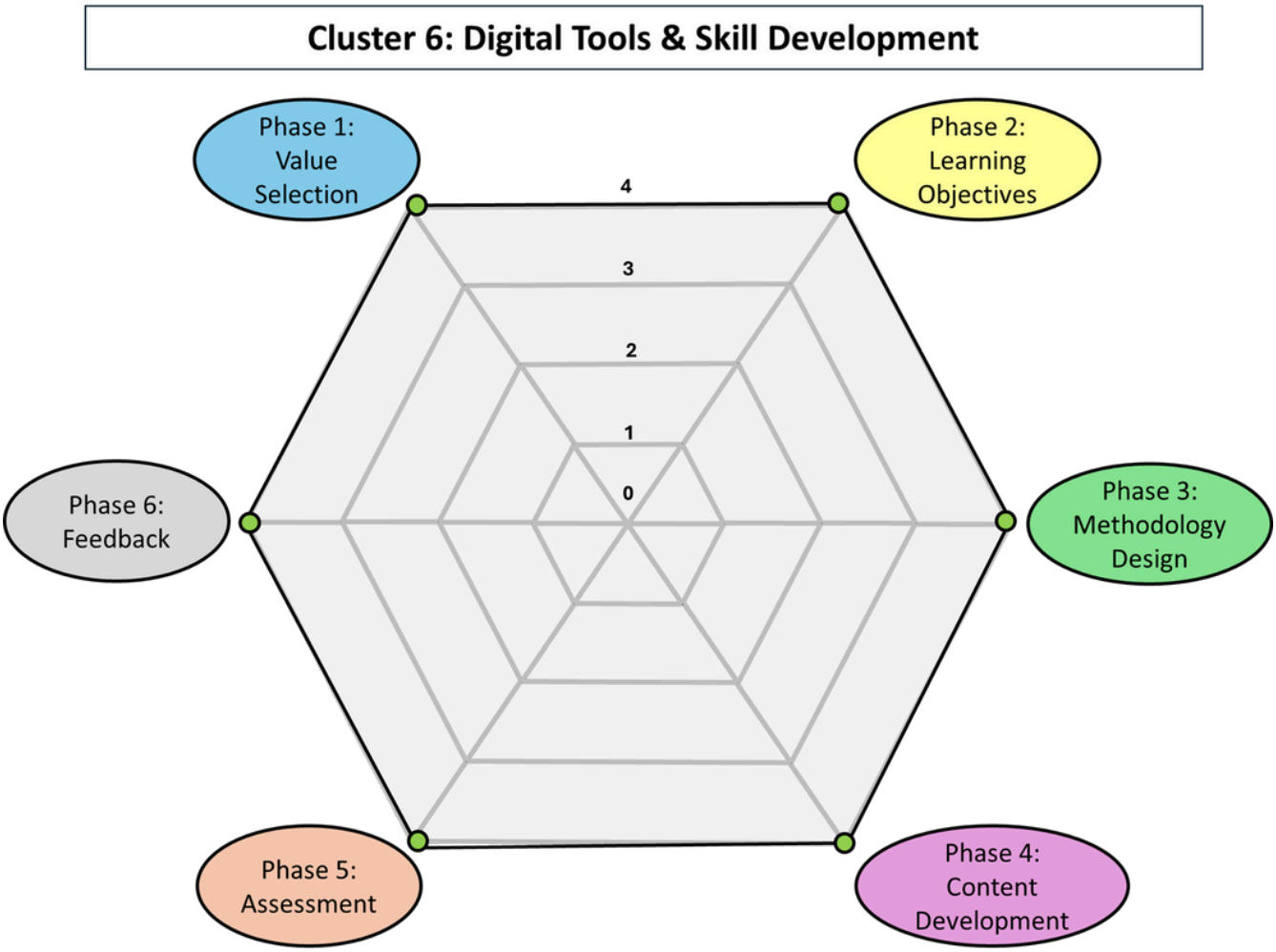
Testimonial

"We designed a collaborative approach where students worked with startups to create digital solutions. This involved using e-learning tools and technologies, such as Moodle and Google Classroom, to engage with the startups and share their insights. It blends academic learning with the development of digital skills and entrepreneurial competencies."

"Creating a digital literacy skills map is a great starting point. Students were asked to map out the digital skills they would need to successfully contribute to Wikipedia, such as sourcing credible references, citation practices, and editing tools. This activity helped students understand the technical aspects of Wikipedia editing while ensuring that they were developing essential digital skills for future engagement."

These tools are not used in a detached way: they are integrated into the pedagogical framework of community engagement and entrepreneurship. Students use their digital knowledge in many different approaches from developing digital learning materials for startups or adult learners, designing real campaigns, providing translation services for migrants or updating digital information on the Internet. In all the activities, the focus on iterative feedback, peer review, and problem-solving encourages the development of skills and also a deeper knowledge of how digital tools can be used to drive social innovation and collaborative learning.

Below is represented the alignment of this group with the phases of the DICE Accelerator.



One particularly important observation in this cluster is the use of digital tools during the assessment and feedback stages of DICE activities. When done well, tools such as LMSs, peer-review technology, digital rubrics and reflection applications can make the evaluation more transparent, inclusive and formative. They also enable educators to monitor the progress of students and impact in the community, while students can reflect on their own learning and contribution in real-time. Through interactive quizzes, multimedia self-tests, and group feedback discussions, the inclusion of digital tools in these latter stages helps students maintain a sense of ownership of their learning, as well as the class, and may help to further a process of iterative course improvement. In the case of digital community engagement, which frequently has an impact beyond the class, these tools can offer a structured way to articulate academic and social impacts.

For educators who want to try out the best practice, the trick is to deliberately choose digital tools that are aligned with the learning and social goals of the course. The initiative could be initiated by focusing on a tangible community or organisational need that students can solve through technology—that's an authentic need. Lastly, it is recommended the use of Learning Management Systems platforms such as Moodle, collaborative editors, media production software, and scheduling tools to be used throughout the course. This allows students to explore, reflect on, and get feedback on using these tools. More importantly, this helps them understand that these are all digital tools not intended for personal use, but rather as a medium for collaboration, innovation, and engagement within civil society. In this way,

educators have the capacity to transform conventional assignments into significant, forward-thinking learning experiences.

Checklist for educators

- [ ] Have we selected digital tools that align with the academic and social goals of our course?
- [ ] Do we give students opportunities to select the tools they will use in the different stages of the DICE activity?
- [ ] Have we established the project to start from a real-world challenge or community need that students can address using technology?
- [ ] Have we built in time and space for students to reflect on their use of digital tools (what worked, what they struggled with, and how their skills are improving)?
- [ ] Have we integrated digital tools into the assessment and feedback process to help track learning progress, community impact, and improve the course experience?

Best Practices Cluster 7: Student-Centred and Experiential Learning

One of the most fundamental principles to arise from the DICE project is the necessity of customising learning tasks and contexts to the individual needs, interests and motivations of the student. The practices in this cluster demonstrate an appreciation for student-centred design, signifying an approach that encourages active engagement and participation from learners in the delivery of the curriculum. This concept emphasises a shift from a passive learning model to one that fosters a sense of agency and autonomy in the construction of the student learning experience. Real-world collaborations with startups, community stakeholders and project partners facilitate students' autonomy, meaningful contributions, and collaborative goal setting. This not only has a motivational effect, but it also helps to engender a feeling of ownership and personal relevance of the learning process.

The use of experiential learning techniques, such as project-based learning, iterative design, and peer-led campaigns, is a common characteristic within this cluster. Students are supposed to learn by doing activities like creating digital marketing projects, working on e-learning modules or spending time in startup incubators. The games encourage both hard and soft skills such as teamwork, adaptability, communication and problem-solving. The

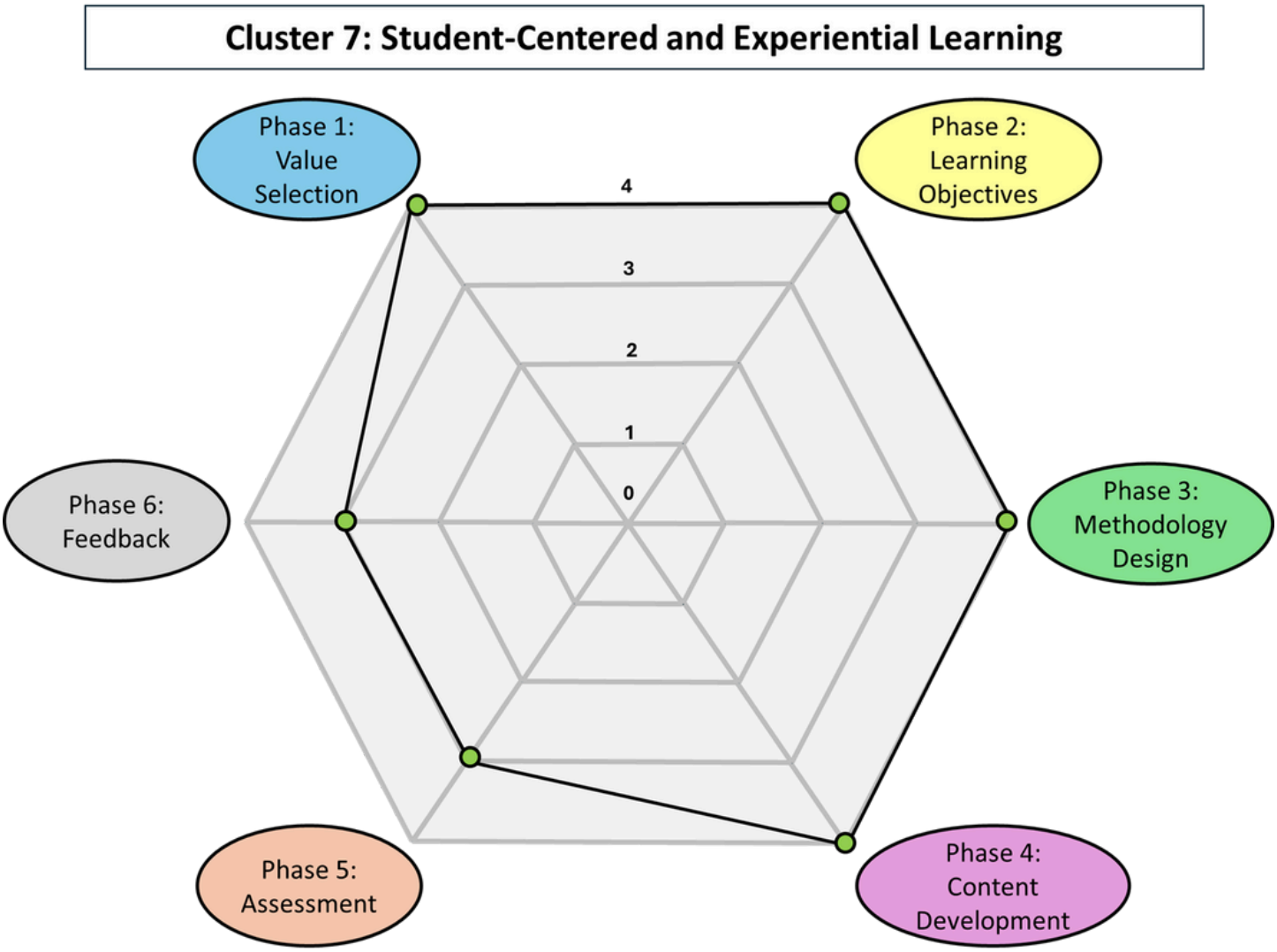
correlation between the content being learned and the problem in such cases makes the education highly concrete, thereby significantly amplifying the impact of the learning process.

Testimonial

"Students were divided into smaller groups (3-4) and encouraged to use the Value Finders to identify what kind of social impact their project should have. But first, we had to dedicate some time to discuss the concepts - digital community engagement, what we mean by values, community, etc. This took longer than expected. They started to work with the Value Finders, but had to finish the assignment at home as time was short. I wanted them to choose the impact they wish to achieve via their projects and be it as real and as tailored as possible."

Another important aspect of this cluster is continuous feedback. Frequently, projects involve user testing, public presentations, or community validation, inviting students to reflect, revise, and develop through experiences. The process of learning is characterised by its constant nature, marked by experimentation and progression. In this paradigm, failure is not a step backwards, but rather a catalyst for subsequent advancement. It is evident that this reflects the issues with which students will be dealing in the workplace, thereby providing them with a more versatile and adaptive outlook. The student-centred model has been found to facilitate a more personalised and inclusive learning experience. It is the responsibility of educators to create conditions that ensure digital education is tailored to the specific needs of the various learner profiles (adult learners, early-stage entrepreneurs, diverse community groups). This should be aligned with a big social purpose, enabling students to relate their personal journey to a wider social context. In addition to acquiring a specific set of skills, students also develop a more profound understanding of how these skills contribute positively to their local community.

The subsequent diagram illustrates the phase-wise integration of these best practices within the DICE Accelerator.



For teachers who aim to apply this good practice within their own digital community engagement courses, it is a matter of first developing flexible learning paths where students can engage with real-world problems in a way that fits their interests and experience. It is recommended that students are permitted to assist in the definition of project objectives, the selection of tools and the assumption of leadership roles. The use of digital learning platforms such as Moodle or WeSchool facilitates collaboration, enables the monitoring of progress and fosters self-reflection. It is imperative to approach the act of learning from a collaborative perspective, offering assistance and establishing a framework, whilst simultaneously ensuring that students are granted autonomy, creativity and the opportunity to exercise choice. This pedagogical model of classroom has been shown to have a positive impact on motivation levels, as well as promoting deeper learning, greater engagement, socially relevant products, and enhanced understanding of the diversity of family structures that shape the lives of students.

Checklist for educators

- [ ] Have we designed learning activities that allow students to take initiative and define their own goals or project roles?
- [ ] Are we using experiential methods, like project-based learning, iterative tasks, or hands-on collaboration, to help students develop practical skills?
- [ ] Have we adapted the learning experience to the needs of different student profiles, including adult learners or those with varied digital skill levels?
- [ ] Are we encouraging students to connect what they're learning to a broader purpose, such as community service, entrepreneurship, or civic engagement?

Best Practices Cluster 8: Instructional Design and e-learning

Designing effective digital learning environments is key to successful digital community engagement. The top recommended practices in this cluster emphasise the development of structured, accessible and interactive e-learning experiences which balance academic learning on the one hand with social relevance. Using learning management systems (LMSs) such as Moodle, WeSchool and Google Classroom in conjunction with collaboration platforms, multimedia tools and assessment systems, teachers were able to develop these digital environments in ways that were not just practical, but also dynamic, responsive, and community-embedded.

One of the virtues of these practices is their deliberate instructional design. The structural design of the course, explicit messages, and content delivery methods serve as mechanisms to communicate the values of community engagement. Students created digital modules and campaigns using practical and actual tools such as Padlet, Audacity, Inkscape and Canva. These were not just technical exercises in isolation, but they occurred in real contexts with local organisations, startups and education-oriented projects. This alignment of design and purpose made the students' work more meaningful and increased their engagement.

Testimonial

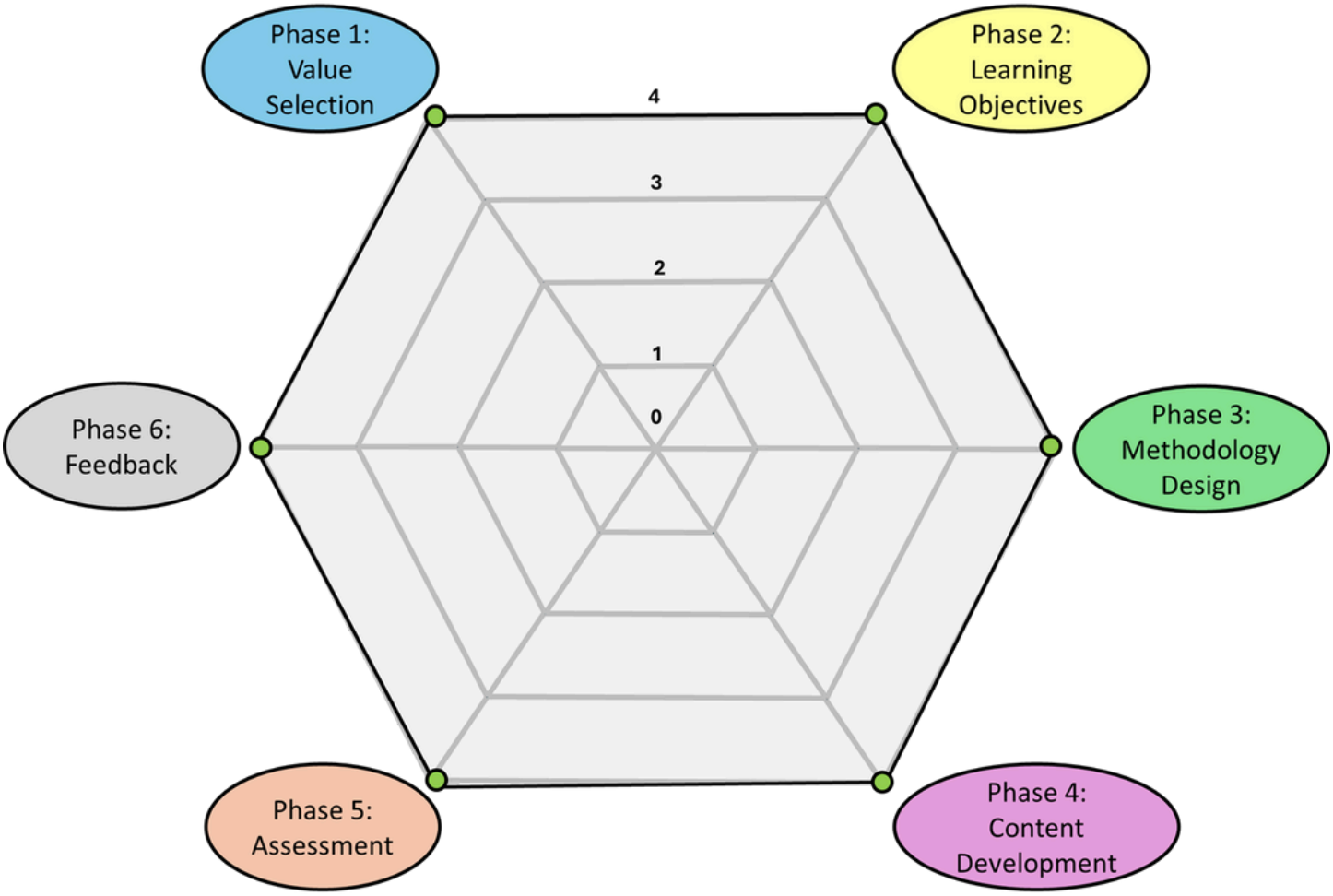
"Sometimes learning objectives get diluted in the hype of the community engagement. Writing them in parallel with community service objectives helps having them in mind at all times. The learning objectives tool is particularly useful for this matter."

"During the Methodology Design phase, we designed a collaborative approach where students worked with startups to create digital solutions. This involved using e-learning tools and technologies, such as Moodle and Google Classroom, to engage with the startups and share their insights. A unique element was the hands-on methodology, where students applied their learning directly to real-world projects. This approach integrates community feedback into the course design, which aligns with the DICE principles of active, practical engagement. It is a best practice in DICE courses as it blends academic learning with industry needs, ensuring relevance and impact."

Evaluation and engagement were also restructured in digital forms. Teachers employed a variety of tools, including Mentimeter, Google Forms, Slack, videos, and digital diaries, in order to facilitate formative assessment, peer feedback, and community-driven assessment. These methods helped students to receive assistance and validation, and also encouraged them to participate in the construction of their own learning paths. A few of the interventions featured immersive and gamified environments that promoted ongoing interaction with real-world stakeholders, improving retention and civic learning.

The relationship between these practices and the phases of the DICE Accelerator is displayed in the diagram below.

Cluster 8: E-learning & Instructional Design



When designing digital community engagement, educators must first select an LMS or platform that can provide structure and flexibility for storage, collaboration, and feedback collection. And then construct learning environments that progress logically and incorporate real-world tasks, using tools that facilitate the co-creation of multimedia and asynchronous collaboration and community interaction. They should also build in checkpoints for reflection and peer review, and provide a variety of individual and group work. Above all, they should design intentionally, ensuring that technology serves the learning and social objectives rather than the other way around. With intentional design, e-learning becomes a place where students can develop their skills and make an impact.

Checklist for educators

- ☐ Have we selected a digital learning platform that supports structured content delivery, collaboration, and assessment?
- ☐ Have we established clear pathways for student progress and participation, with a balance between structure and flexibility?
- ☐ Is our instructional design aligned with the social goals of the course, helping students connect their work to broader community needs and values?

Best Practices Cluster 9: Horizontal Knowledge & Multidisciplinary Exchange

One of the most exciting aspects of digital community engagement is its potential to challenge conventional learning hierarchies. The promising practices in this group focus on the development of horizontal learning spaces, in which students and teachers collaborate on an equal basis. These activities are also intended to encourage peer-to-peer guidance and knowledge sharing, as well as cross-disciplinary and multilevel learning, as an alternative to top-down provision. This "flatter" model enables learners to contribute their own perspectives and experiences more effectively, making learning more democratic, inclusive, and relevant.

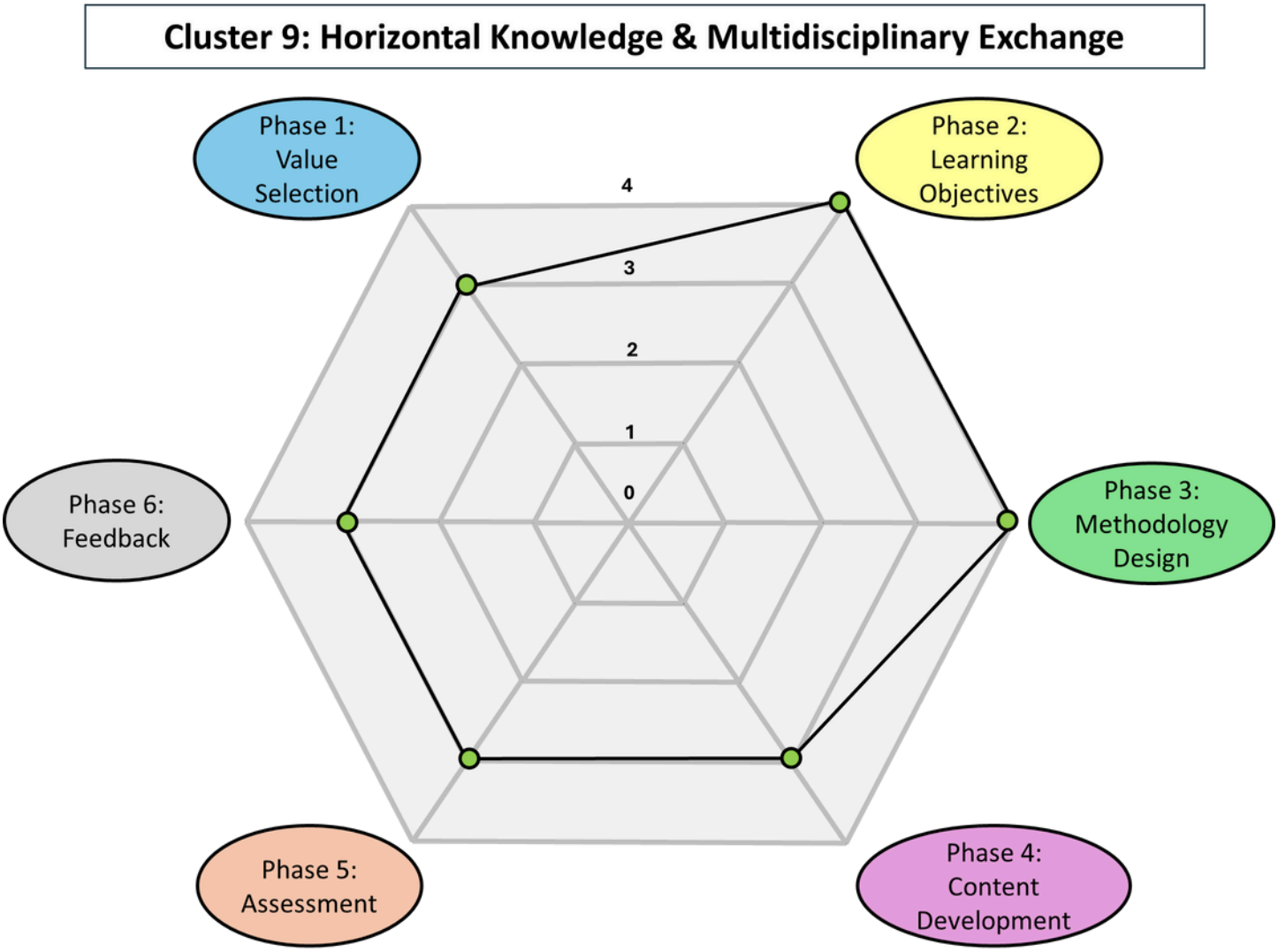
These approaches are founded on the concept that multidisciplinary collaboration is key. When students and educators from different fields come together, each bringing their own set of tools, points of view, and approaches to solving problems, learning becomes both more intense and representative of the complexity of real-world issues. By collaboratively co-constructing valuable campaigns, in collective community projects, and in reflective activities, students develop technical and social skills, as well as an awareness of diverse thinking. Activities, such as co-creating projects and solving cross-disciplinary cases, are conducive to co-responsibility and a shared sense of ownership of the learning objectives.

A second advantage of such practices is the lesson in agency that the learner gains through collective work. Whether they are working with adult learners around the world, reviewing each other's Wikipedia entries, or participating in team-based decision-making, students are always invited to chart their own paths, assess their impact, and adapt their approach. These shared dynamics allow learners to become leaders, to negotiate meaning, and take responsibility not just for their own learning, but also for the success of the group. Over time, the repeated reflection and feedback reinforce the team's resilience and creativity in addressing problems.

Testimonial

"Participation of 10 university professors from different disciplines. This results in a transdisciplinary approach that offers an opportunity for feedback in addressing the problem of drug-facilitated sexual violence. There is coordination and sharing of diverse knowledge among pairs of stakeholders: student-student; professor-professor; student-professor."

The diagram below reflects the links between this set of best practices and the phases of the DICE Accelerator.



To implement this best practice, teachers would specifically create a project involving the collaboration between their students and several other teachers from different subject areas or cultures. Online tools should be used to encourage idea generation, group decisions and peer feedback. Encourage students to negotiate project objectives, take turns leading, reflect as a team on what they have learned together, and improve their collaborative skills. By providing a space for shared responsibility and horizontal exchange, teachers can foster an inclusive classroom ethos, empowering and in touch with the digital realities of civic life.

Checklist for educators

- [ ] Have we intentionally included students or collaborators from different disciplines, backgrounds, or experiences in the project design or implementation?
- [ ] Have we created opportunities for horizontal collaboration where all participants can contribute ideas equally and shape the learning process together?
- [ ] Are we using digital tools (e.g. Google Docs, Padlet, peer review platforms) that facilitate real-time collaboration, feedback, and co-authorship among team members?

Best Practices Cluster 10: Tools for Value Orientation

One of the defining features of the DICE methodology is its emphasis on placing values at the centre of the learning process. In this cluster, best practices demonstrate how tools such as the DICE Value Maps and the Value Finders can guide students in determining what is personally important to them - socially, ethically and professionally. Consequently, students are able to negotiate their learning pathway. These tools assist students in making informed decisions about the focus of their projects, match their activities to actual community needs, and considering ways to make their values meaningful to the wider society.

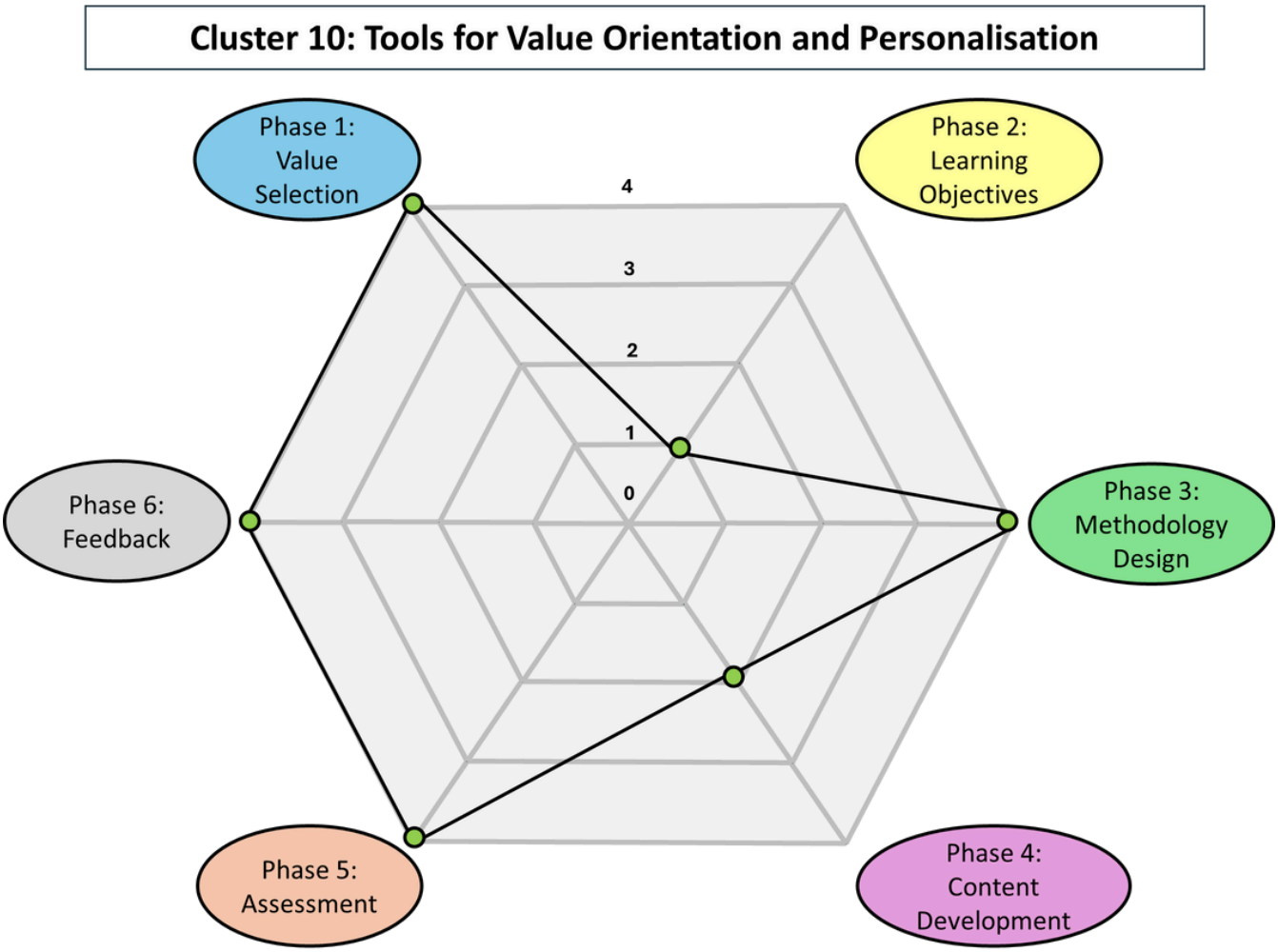
The value-orientation framework is intended to support personalisation. Instead of making a pre-determined path for everyone, teachers provide flexible options so students can choose themes, targets and social aims that are meaningful to them. This degree of independence fosters motivation and engagement, as well as cultivating important self-awareness. For instance, students can use Value Finders to identify social values they wish to engage with.

Testimonial

"In the 'Value Selection' phase, the focus was on choosing values that aligned with both the students' needs and the broader goals of adult education. The key activity was selecting values related to practical digital skills and real-world applications that could directly benefit community engagement. A unique element was the integration of these values into assignments where students actively engaged with real-life challenges faced by adult learners and educational institutions. This approach emphasises not only academic learning but also the social impact of digital education."

Reflection is one of the cornerstones of this method. Students are also given the opportunity to reflect on their choices, contributions, and the values associated with their actions using digital tools such as journals, forums, and organised peer assessments. These reflections are incorporated into assessment models that blend quantitative (e.g., engagement) and qualitative (e.g., SRL, peer feedback) aspects. These are more than measures of performance; they reflect growth, integrity, impact, and provide feedback and self-awareness that fosters ongoing improvement.

This diagram shows how this set of best practices relates to the phases of the DICE Accelerator.



To integrate this approach into their own classrooms, educators can start by introducing the DICE Value Maps or Value Finders at the beginning of a course, as a form of self-assessment or as part of a project planning session. Some promising approaches also give students a chance to embrace their own values by encouraging them to identify what matters most to them and urging them to reflect frequently on how these values shape their learning and decisions. Leverage digital tools (e.g., rubrics, peer assessment tools, reflective journals, surveys) to collect and compare student feedback at different points in a course. Above all, be sure to add value orientation to your rubric, as in not just what students did and what they

valued, but also consider why they did so and what they learned about themselves and about how they can contribute to the community. This ensures that learning remains personal, intentional, and effective.

Checklist for educators

- ☐ Have we introduced the DICE Value Maps or Value Finders at the beginning of the course to help students identify the social and ethical values they care about?
- ☐ Have we given students the flexibility to choose project themes, target communities, or issues that align with their personal values and motivations?
- ☐ Have we designed assessment methods that include both qualitative and quantitative elements, such as self-assessment, peer feedback, and value-based criteria?
- ☐ Have we used student feedback (e.g., surveys, open-ended responses) to adjust the course or better align it with learners' values and community needs?

Best Practices Cluster 11: Co-Design and Collaboration with External Partners

Engaging with external stakeholders, including NGOs, startups, cities, and cultural institutions, is also vital to the process of digital community engagement to ensure that the engagement is authentic, complex, and meaningful for students. The best practices in this cluster emphasise the importance of partner involvement not only in the execution of the project, but also in the course design stage (even when defining the learning objectives, learning outcomes and assessment criteria). By co-designing these elements with community users, educators can help to ensure that students are producing work that responds to real needs, promotes civic agency, and adds meaningful value beyond the classroom.

In this spirit of collaboration, traditional course design becomes a commonspace for knowledge creation. When partners co-define learning objectives, students are more likely to encounter real-world constraints, moral dilemmas, and cross-sector competition. Such experiences foster critical thinking and strengthen students' collaborative problem-solving abilities. Through digital webinars, community-informed design cycles, or participatory value

mapping, educators can provide relevant learning that is responsive to outside voices without compromising academic rigour and accountability.

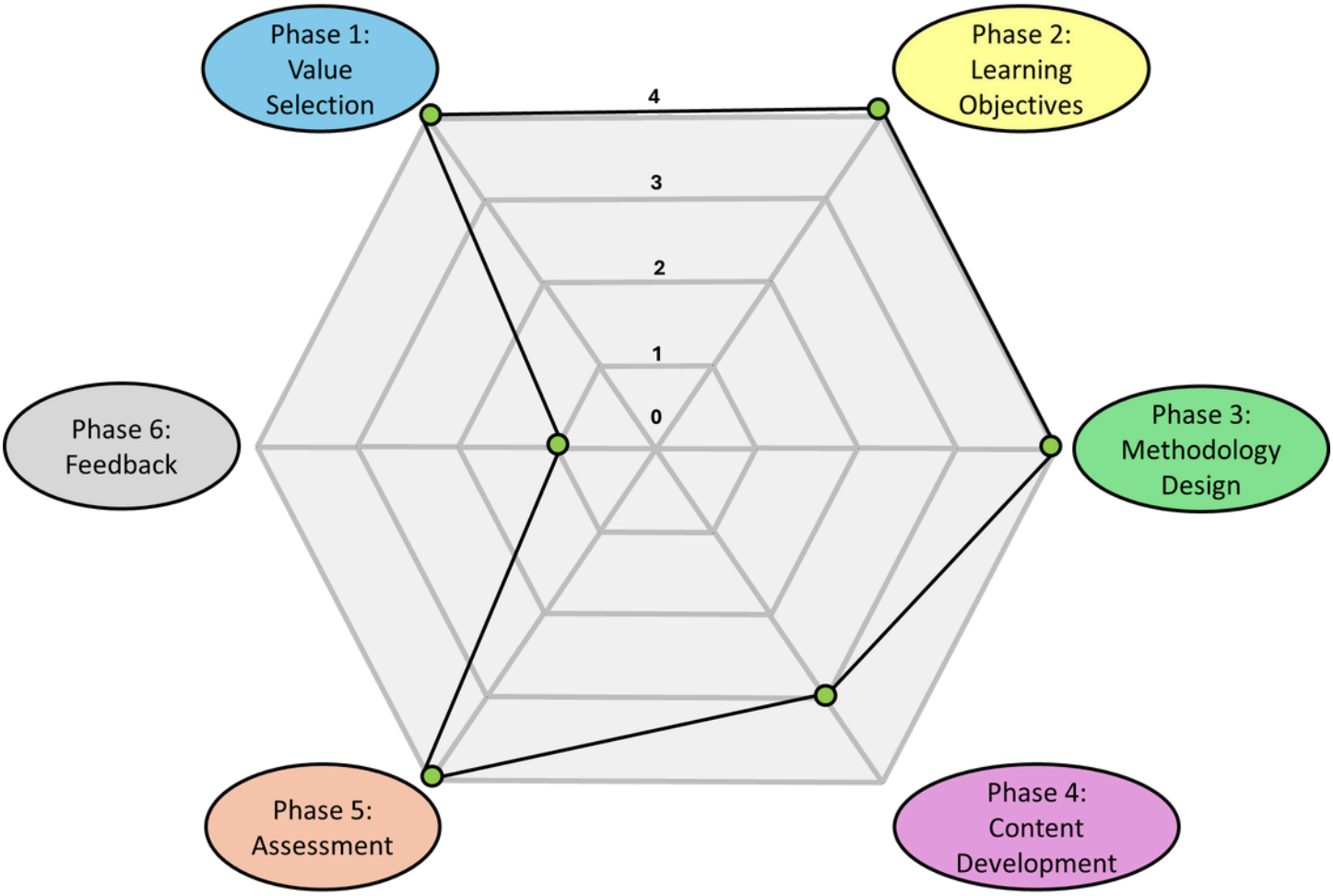
Testimonial

"Consultations with external Wikipedia editors. In some cases, we engaged experienced community members who provided feedback, adding a real-world dimension to the digital community experience."

The involvement of stakeholders in the assessment is just as important. Through evaluations of students' projects, participation in public presentations and the joint development of rubrics, the external partners provide valuable information about the social relevance, usability, and impact of the students' work in the community. These iterative feedback loops enhance the students' learning experience and the project's impact on the community. Often, this co-evaluation leads tomutual learning: partners gain exposure and insight, while students receive real-time, multi-perspective feedback that reinforces in the reinforcement of their professional and personal development.

What follows is a diagram relating this set of best practices to each of the DICE Accelerator phases.

Cluster 11: Co-Design and collaboration with External Partners



To implement this approach, teachers should identify local or thematic stakeholders early in the course production process and invite them to co-create the learning objectives and project scope. They should be engaged through workshops, online problem-solving or co-creative platforms, where they can help determine the direction of the project. Use shared tools (such as Google Docs Padlet, or Miro) to co-create resources, frameworks, and feedback loops. Keep open channels of communication throughout the course to enable partners to provide ongoing input and participate in assessment activities. This collective responsibility guarantees that learning is not only rigorous and academic, but also socially significant and connected to the real needs and interests of the communities we hope to serve.

Checklist for educators

- [ ] Have we consulted with community stakeholders to shape project topics, challenges, or themes that reflect real-world needs?
- [ ] Have we designed opportunities for external partners to provide input during the course (e.g. mentorship, feedback sessions, review of student work)?
- [ ] Have we designed assessment methods that include both qualitative and quantitative elements, such as self-assessment, peer feedback, and value-based criteria?
- [ ] Is our evaluation process inclusive of external perspectives, for example, through stakeholder feedback, public presentations, or co-assessment rubrics?

Best Practices Cluster 12: Sustainability, Open Resources and Accessibility

In digital community engagement, sustainability is not just about the environment; it also applies to the long-term usability, openness, and inclusiveness of learning materials. The practices in this cluster illustrate that course projects can serve to develop enduring pedagogical resources, support institutional memory, and extend their social impact. In 8 out of 23 examples, teachers encouraged students to produce digital content, such as campaigns, infographics, videos or knowledge banks, which could be reused, repurposed, or openly shared among peers, the community, or members, and subsequent working generations.

A key aspect of this work is ensuring that the products and tools resulting from these projects are accessible to all, including people with disabilities. Future projects are encouraged to incorporate the universal design concepts, such as accessible templates, subtitles or transcripts of multimedia content, and compatibility with screen readers. They should also apply universal design standards to websites and visuals. This helps students to understand the process of designing for real people and ensures that digital community engagement work leaves behind resources that are accessible and inclusive.

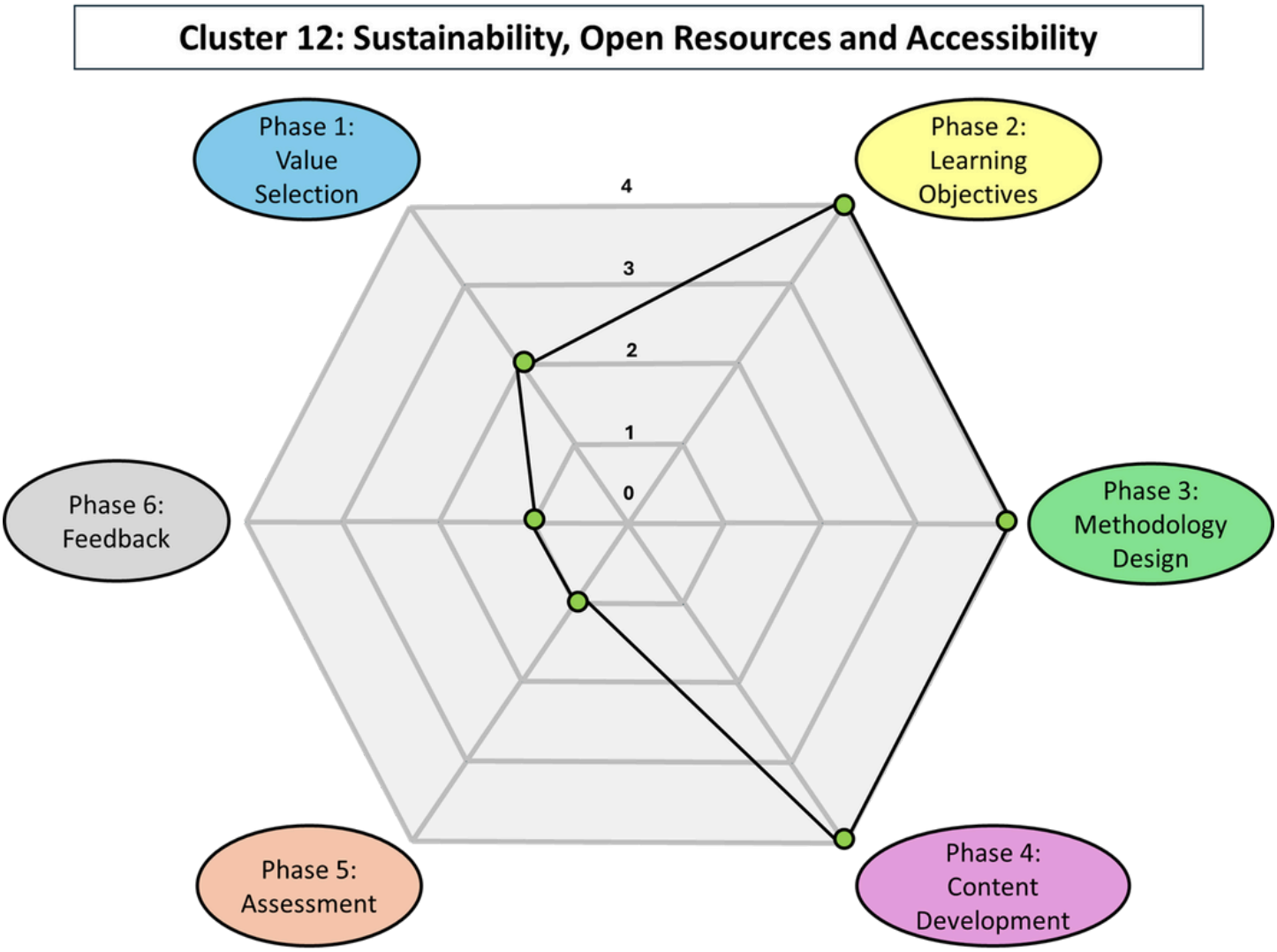
Testimonial

“A repository of selected contents has been created as a collaborative effort of 10 professors involved in the project, and has been implemented on the university's BlackBoard platform with access to approximately 600 students annually. The repository of Learning Service actions is a basic tool for advancing a long-term project.

Acquisition of cross-cutting and specific knowledge using specific course materials; coordination of ideas and efforts among more than 600 students through the discussion space on the Blackboard platform; collaborative preparation among groups to prepare for social service for the prevention of drug-facilitated sexual violence.”

Ultimately, many of these practices reported in this cluster were about institutions aligning and scaling efficiently, as they need to do on sustainability. If students' material is kept in learning systems such as Moodle or Blackboard, or in an institutional repository, it can later be used as models or references for new learners. Educators also had to collaborate with colleagues from different departments and disciplines to ensure that the digital products that they created had long-term value and could contribute towards other strategic goals, such as outreach, training, or public engagement.

The following diagram illustrates the connection between these practices and the respective stages of the DICE Accelerator.



To successfully incorporate this practice into online community outreach, educators can design with sustainability and accessibility in mind from the beginning. This includes considering the reuse of student outputs by subsequent courses or communities, and choosing digital formats that are compatible with open access and assistive technologies. Teach people about accessible design principles like writing good captions and alternative text, and creating screen reader–friendly web pages. Also, build inclusivity into your culture. Collaborating with institutional support teams and aligning with wider strategic plans can add long-term value to course outputs. Teachers who incorporate reusability, inclusivity and open sharing into their design principles create learning experiences that have a life beyond the classroom and continue to be useful to others in the future, and for the future.

Checklist for educators

- [ ] Have we designed student outputs so they can be reused or shared beyond the course, for example, by future cohorts or community stakeholders?
- [ ] Have we ensured that digital content created in the course follows accessibility guidelines?
- [ ] Are we using open formats, Creative Commons licensing, or institutional platforms that support the sharing and preservation of educational materials?
- [ ] Have we aligned the learning outputs with institutional strategies for digital inclusion, sustainability, or community engagement?

CONCLUSIONS

This DICE Best Practices Report provides a detailed overview of innovative methods for incorporating digital community engagement into higher education. By analysing and categorising 198 good practices reported by educators, this report collects meaningful and replicable pedagogical strategies. While each cluster has a particular focus, such as entrepreneurship, creativity, ethics, or co-design, common themes emerge, emphasising the transformative potential of digital, value-based, and community-connected learning.

One of the most significant findings from the collected practices is the vital role of institutional support. While educators demonstrate creativity and commitment, the long-term success of DICE activities hinges on universities embracing their third mission. It is an institutional responsibility to foster community engagement beyond teaching and research. Setting up Community Engagement Units or Service-Learning Hubs can help to coordinate multidisciplinary teams, centralise resources and tools, and provide strategic leadership to ensure consistency and visibility across departments.

A recurrent topic across the various clusters is the emphasis on initiatives that link academic instruction with practical, real-world issues. These activities go beyond simulations, whether through collaborations with start-ups, local communities, or non-profits. They immerse students in situations where their contributions matter. In doing so, students gain practical skills and begin to see themselves as agents of change. In this sense, digital community engagement becomes a means of building civic responsibility and ethical awareness, as well as a pedagogical method.

A further remarkable element is the emphasis on collaborative learning and knowledge co-creation. A significant proportion of the activities have been found to involve students, educators, professionals, and community members working in collaboration. This horizontal approach to learning has the potential to flatten hierarchies and create space for a variety of expertise and experience. Findings also support that when student autonomy is encouraged and a sense of shared ownership is fostered, this leads to increased engagement and motivation.

In future, it is recommended that universities consider the following steps to build on the work initiated here. Firstly, DICE-inspired approaches should be integrated into curriculum planning and supported at the strategic level. Secondly, educators require time, training, and recognition for the efforts involved in designing such activities. Thirdly, it is imperative to cultivate long-term relationships with community partners, not only to ensure the relevance of student projects but also to reinforce the university's role as an active and responsive entity within society.