


## I. Objective

1. **Guiding and Regulating Projects:** Encouraging critical thinking and problem-solving in project ideation and execution processes, and promoting effective communication to present and defend project ideas.
2. **Promoting Collaborative and Solution-Oriented Mindset:** Fostering collaboration and a solution-oriented approach, promoting projects that address real-world challenges with innovative solutions.
3. **Inspiring Innovation and Entrepreneurship:** Facilitating entrepreneurship and fostering leadership skills among learners and Learning Facilitator, contributing to a vibrant entrepreneurial culture within the institution.
4. **Ensuring Continuity Across Batches:** Promoting leadership and continuity in projects across learner batches, encouraging ongoing development and improvement of projects over time.
5. **Encouraging Rigorous Academic Research:** Promoting rigorous academic research, encouraging critical thinking in research development, effective communication in sharing research findings, and collaboration in academic contribution

## II. Eligibility

- The policy applies to all BDS learners and Learning Facilitator members at JKKN Dental College and Hospital who can guide and supervise learner projects to ensure their alignment with the CoE.  
 SOP for Operations of the Centre of Excellence (CoE)

## III. learner and Learning Facilitator Incentives

- Relaxation in attendance requirements for learners and Learning Facilitator actively participating in projects that significantly contribute to the CoE.
- Bonus Marks for Project Completion Aligned with CoE Focus, Milestone-Based Determination of Subject Topper, and Contribution to Best Outgoing learner Award

- Special recognition, additional funding, or resource allocation for projects that contribute to the CoE.
- Presentation opportunities at conferences, seminars, and competitions.
- Potential for projects to transition into startups, solution-based projects, or academic research.
- Incentives for Learning Facilitator members guiding projects that significantly contribute to the CoE, including awards, commendations, financial incentives, IP rights and revenue sharing, mentorship, and entrepreneurship development programs.

#### **IV. Project Integration and Development**

- As a separate component of the curriculum, solution-based projects will be initiated using Design Thinking methodology, ensuring they contribute to the CoE's goals.
- Evaluation and screening of projects for their potential impact and alignment with the CoE's focus, leading to a trajectory decision: solution-based project, startup, or academic research.
- Support for research leading to innovative products and solutions relevant to the CoE.
- Promotion of a user-centric approach in problem identification and solution development.
- Encouragement of cross-disciplinary collaboration for developing and implementing new ideas that benefit patients.

#### **V. Academic Research Integration**

- Guiding Promising Projects Towards Academic Research: Projects with a substantial potential for scientific contribution and significant relevance to the CoE's focus will be channeled towards academic research.
- Promoting Scholarly Communication: Encouraging and facilitating opportunities for learners to publish their findings in academic journals and present their work at academic conferences and symposiums.

#### **VI. Building Entrepreneurial Culture**

- Regular entrepreneurship workshops and training programs for Learning Facilitator and learners, emphasizing initiatives that align with the CoE's focus.
- Promoting Intrapreneurship Initiatives.
- Sharing entrepreneurial success stories within the institution, particularly those related to the CoE.

## **VII. Utilization of Brainstorming and Training Room at NLB**

- Encourage the utilization of these spaces for activities related to the CoE, including kick-off meetings, weekly brainstorming sessions, ideation and design thinking workshops, project updates & reviews, training sessions, final presentations, and continuity meetings.

## **VIII. Transition Based on Project Trajectory**

- Identification of project trajectory: As solution-based projects for commercialisation via JICATE Solutions, as startups for incubation at NLB, or as contributions to academic research.
- Guidance and support for the chosen trajectory: Including mentorship, funding, infrastructure, and networking opportunities for solution-based projects and startups, and academic support, research guidance, and publication assistance for academic research projects.

## **IX. Funding Support and Transition to NLB or JICATE Solutions**

- Guidance for transfer of promising projects to NLB or JICATE Solutions.
  - ☰ [NLB Startup Policy](#)
- Alignment with NLB's or JICATE Solutions' eligibility and admission process.
- Encouragement for iterative prototyping and testing at NLB or within JICATE Solutions.
- Access to funding support, mentorship, infrastructure, and support services through NLB or JICATE Solutions.
- Facilitation of industry linkages and alumni networking via NLB or JICATE Solutions.
- Increased funding avenues available to learners and Learning Facilitator through grants, loans, or tax breaks.

## **X. Success Tracking**

- Regular tracking of milestones and progress reporting for startups, projects, and academic research aligned with CoE's goals.
- Benchmarking against other incubation programs.
- Continuous feedback and iterative improvements.

## **XI. Review and Approval**

- Submission of project proposals for review, prioritizing projects aligning with the COE's area of focus.
- Approval by a committee comprising Learning Facilitator, administration, and external members.

## **XII. Policy Accessibility**

- Making the policy easy to understand, navigate, and use for both learners and Learning Facilitator.
- Creation of a dedicated website or an online resource center providing information about the policy, application procedures for funding, and additional support resources.
- Objective
- Guiding and Regulating Projects: The policy aims to guide and regulate projects undertaken by learners and Learning Facilitator, ensuring alignment with the Center of Excellence's (CoE) focus. It encourages critical thinking and problem-solving in project ideation and execution processes, and promotes effective communication to present and defend project ideas.
- Promoting Collaborative and Solution-Oriented Mindset: This policy fosters collaboration and a solution-oriented approach among learners and Learning Facilitator. It promotes projects that address real-world challenges and offer innovative, practical solutions. This focus on collaboration and problem-solving cultivates a culture of innovation within the academic community.
- Inspiring Innovation and Entrepreneurship: The policy facilitates entrepreneurship relevant to the CoE's focus, fostering leadership skills among learners and Learning Facilitator. It provides resources, mentorship, and incentives to transform innovative ideas into viable

business ventures or impactful projects, contributing to a vibrant entrepreneurial culture within the institution.

- **Ensuring Continuity Across Batches:** The policy aims to instill leadership skills and promote continuity in solution-oriented projects across learner batches. It encourages critical thinking and problem-solving through the ongoing development and improvement of projects over time, maximizing their potential.
- **Encouraging Rigorous Academic Research:** The policy promotes rigorous academic research in the field of bioconvergence. It encourages critical thinking in developing research projects, effective communication in sharing research findings, and collaboration in contributing to the CoE's focus area.

## **Eligibility**

- The policy applies to all BDS learners and Learning Facilitator members at JKKN Dental College and Hospital who can guide and supervise learner projects to ensure their alignment with the CoE.

## **Promotion of AI Tools and Techniques**

In alignment with JKKN Institution's vision to be a leading global innovative solutions provider, we actively encourage the use of artificial intelligence (AI) tools and techniques in our research, solution development, and entrepreneurial ventures. Recognizing the potential of AI to revolutionize healthcare, improve efficiency, and drive innovation, the following measures are implemented:

1. **AI Education:** Introduction of training sessions and workshops to acquaint learners and Learning Facilitator with AI capabilities, tools, and techniques relevant to their fields of study.
2. **AI Integration in Projects:** Encourage the integration of AI into projects where applicable. This could be in the form of AI-driven data analysis, predictive modeling, automation of routine tasks, or other innovative applications.
3. **AI-focused Research:** Promote research in AI technology, especially in areas related to healthcare and bioconvergence. Opportunities for publication in academic journals and presentations at conferences will be provided.

4. **AI in Entrepreneurial Ventures:** Support and mentorship will be provided for startup ideas that incorporate AI in a meaningful way. Learners and Learning Facilitators will be encouraged to explore how AI can be used to create innovative products, services, or business models.
5. **AI Ethical Guidelines:** While promoting the use of AI, we are also committed to ensuring that it is used responsibly. AI-related projects will need to adhere to established ethical guidelines, including considerations around data privacy, transparency, and fairness.

### learner and Learning Facilitator Incentives

- **Milestone-based determination of subject topper:** The title of subject topper can be determined based on a combination of academic performance and successful achievement of project milestones. This approach acknowledges both academic achievement and the practical application of learning through project work.

#### 1. Attendance Relaxation.

Learners and Learning Facilitators who participate actively in projects can avail attendance relaxation. However, the relaxation provided should not make the overall attendance fall below the minimum attendance percentage mandated by the University or any relevant regulatory body. The attendance benefit is given in response to active engagement in project-related activities, and not merely for membership in the project team.

<b>Milestone</b>	<b>learner Attendance Relaxation</b>	<b>Learning Facilitator Attendance Relaxation</b>
------------------	--------------------------------------	---

Project proposal submission	2%	2%
Prototype developed (all trajectories)	5%	5%
Project accepted for startup incubation	10%	10%
Project accepted for academic publication	10%	10%
Successful implementation of solution-based project	10%	10%

**2. Bonus Marks for Project Completion Aligned with CoE Focus, Milestone-Based Determination of Subject Topper, and Contribution to Best Outgoing learner Award**

<b>Milestone</b>	<b>Bonus Percentage Contribution to CIA</b>	<b>Percentage Contribution to Subject Determination</b>	<b>Percentage Contribution to Topper</b>	<b>Percentage Contribution to Best Outgoing learner Award</b>
Project proposal submission	0%	10%		5%
Prototype developed (all trajectories)	2%	20%		10%
Project accepted for startup incubation	25%	30%		15%
Project accepted for academic publication	5%	20%		10%



Successful implementation of solution-based project	20%	20%	10%
---	-----	-----	-----

**Note:** Bonus percentages in continuous internal assessments are awarded to learners who complete a project that aligns with the CoE focus. These bonus points are over and above the normal CIA marks. The title of "Subject Topper" and contribution towards "Best Outgoing learner" award can be determined based on a combination of academic performance and successful achievement of project milestones. This approach acknowledges both academic achievement and the practical application of learning through project work. However, the additional bonus percentage should not exceed 25% of the maximum allowable CIA marks.

[☰ Continuous internal assessment CIA](#)

[☰ Criteria for determining the Subject Topper and the Best Outgoing Stude...](#)

### 3. Special Recognition.

Special recognition for learners and Learning Facilitator is contingent upon the quality, novelty, and impact of the project. The projects should demonstrate a significant contribution to the CoE's area of focus. These recognitions are determined by an expert panel and are given based on specific milestones achieved.

<b>Milestone</b>	<b>learner Recognition</b>	<b>Learning Facilitator Recognition</b>
Project proposal submission	Acknowledgement in CoE communications	Acknowledgement at Learning Facilitator meetings
Prototype developed (all trajectories)	Certificate of Participation, Name on CoE website	Acknowledgement at Learning Facilitator meetings, Name on CoE website
Project accepted for startup incubation	CoE Certificate of Achievement, Feature on CoE website	CoE Certificate of Achievement, Feature on CoE website
Project accepted for academic publication	CoE Certificate of Achievement, Feature on CoE website	CoE Certificate of Achievement, Feature on CoE website

Successful implementation of solution-based project	CoE Certificate of Achievement, Feature on CoE website	CoE Certificate of Achievement, Feature on CoE website
---	--	--

**4. Presentation Opportunities:**

Sponsorship for presentation opportunities are provided to learners and Learning Facilitator based on the quality and impact of their projects. These sponsorships are contingent upon the project's progress and acceptance in relevant seminars, conferences, or competitions.

<b>Milestone</b>	<b>learner Presentation Opportunities</b>	<b>Learning Facilitator Presentation Opportunities</b>	<b>Expense Sponsorship</b>
Prototype developed (all trajectories)	Local academic events	Local and regional academic events	Registration Fees

Project accepted for startup incubation	Local, regional and national academic and entrepreneurial events	Local, regional and national academic and entrepreneurial events	Full - Local and regional events, Partial - National events
Project accepted for academic publication	Local, regional, national and international academic events	Local, regional, national and international academic events	Full - Local, regional and national events, Partial - International events
Successful implementation of solution-based project	Local, regional, national and international academic and entrepreneurial events	Local, regional, national and international academic and entrepreneurial events	Full - All events

## 5. Potential for Projects to Transition:

The potential for projects to transition into startups, solution-based projects, or academic research is dependent on the project's quality, innovation, and alignment with the CoE's focus.

<b>Milestone</b>	<b>Project Transition Potential</b>
Project proposal submission	Project evaluated for potential transition
Prototype developed (all trajectories)	Enhanced evaluation for transition
Project accepted for startup incubation	Dedicated support and mentorship for incubation transition
Project accepted for academic publication	Assistance in academic publication and further research

Successful implementation of solution-based project	Assistance in implementation and impact tracking
---	--

## 6. Learning Facilitator Incentives:

Learning Facilitator incentives are determined based on their active participation, guidance, and contribution to the project. These incentives are subject to the approval of an expert panel or the relevant authority overseeing the policy's implementation.

<b>Milestone</b>	<b>Learning Facilitator Incentives</b>	<b>Expense Sponsorship</b>	<b>Intellectual Property Rights</b>	<b>Revenue Sharing</b>	<b>Mentorship &amp; Guidance</b>
Project proposal submission	Eligibility for mentorship and entrepreneurship development programs	None	None	None	Access to roster of external mentors

<p>Prototype developed (all trajectories)</p>	<p>Recognition, Eligibility for mentorship and entrepreneurship development programs</p>	<p>None</p>	<p>None</p>	<p>None</p>	<p>Access to roster of external mentors, Eligibility for one-on-one guidance sessions</p>
<p>Project accepted for startup incubation</p>	<p>Recognition, Financial incentives (conditional on the project's progress and success)</p>	<p>Partial - Depending on nature of startup</p>	<p>Learning Facilitator: 60%, Institution: 40% (On patent rights)</p>	<p>Learning Facilitator: 60%, Institution: 40% (On profits from commercialization)</p>	<p>Access to roster of external mentors, Eligibility for one-on-one guidance sessions, Opportunity for workshops or seminars</p>

<p>Project accepted for academic publication</p>	<p>Recognition, Potential for academic promotions</p>	<p>Partial - Depending on the nature and level of academic publication</p>	<p>Learning Facilitator: 60%, Institution: 40% (On patent rights)</p>	<p>Learning Facilitator: 60%, Institution: 40% (On profits from commercialization)</p>	<p>Access to roster of external mentors, Eligibility for one-on-one guidance sessions, Opportunity for workshops or seminars</p>
<p>Successful implementation of solution-based project</p>	<p>Recognition, Financial incentives</p>	<p>Full - All expenses related to project implementation and research</p>	<p>Learning Facilitator: 60%, Institution: 40% (On patent rights)</p>	<p>Learning Facilitator: 60%, Institution: 40% (On profits from commercialization)</p>	<p>Access to roster of external mentors, Eligibility for one-on-one guidance sessions, Opportunity for</p>



					workshops or seminars
--	--	--	--	--	--------------------------

**7. Learning Facilitator Entrepreneurship Development Programs:**

Learning Facilitator members who demonstrate a keen interest in entrepreneurship and make significant contributions to learner projects are eligible to participate in Learning Facilitator Entrepreneurship Development Programs.

<b>Milestone</b>	<b>Incentive</b>	<b>Expense Sponsorship</b>
Project proposal submission	Eligibility for basic entrepreneurship development programs	Full
Prototype developed (all trajectories)	Eligibility for intermediate entrepreneurship development programs	Full

Project accepted for startup incubation	Eligibility for advanced entrepreneurship development programs, including sessions on pitching to investors, business strategy, etc.	Full
Securing funding for a startup project	One-on-one mentorship sessions with experienced entrepreneurs and investors	Full
Successful implementation of startup	Invitations to serve as guest speakers or mentors for future programs	Full (plus honorarium for service)

### 8. "Learning Facilitator Entrepreneur of the Year" Award

Milestone	Incentive
Successful funding secured for a startup project	Eligibility for "Learning Facilitator Entrepreneur of the Year" award

Successful implementation and progress of a startup	Increased likelihood to win the award
Positive impact created (in terms of revenue, jobs, etc.)	Increased likelihood to win the award
Contribution to the academic community (papers, presentations)	Increased likelihood to win the award
Collaboration with other Learning Facilitator members and learners	Increased likelihood to win the award

**Incentives associated with the "Learning Facilitator Entrepreneur of the Year" award can include:**

1. A cash bonus or grant that can be used to further the entrepreneurial project.
2. Recognition on the institution's website, newsletters, and social media platforms.
3. Opportunities to present at institution-wide meetings and forums.
4. Invitations to serve as guest speakers or mentors for future programs.
5. An award trophy or certificate.

## 9. Learning Facilitator Entrepreneurship Development Rating System

Criteria	Not Yet Present (1)	Developing (2)	Established (3)	Exemplary (4)
Entrepreneurial Activity	Has not yet engaged in entrepreneurial activities	Has shown interest in entrepreneurship and has attended relevant trainings or workshops	Has developed a solution-based project with potential for entrepreneurship	Has successfully launched a startup or secured funding
Mentorship Utilization	Has not yet engaged with a mentor or utilized entrepreneurial resources	Has identified a mentor and has begun to engage with them	Regularly interacts with mentor and applies advice to entrepreneurial activities	Actively engages with mentor, applies their advice effectively, and also shares knowledge with other Learning

				Facilitator members
Training Attendance	Has not attended any entrepreneurial development programs or workshops	Has attended a few entrepreneurial development programs or workshops	Regularly attends entrepreneurial development programs and actively applies learnings	Not only attends but also actively contributes to entrepreneurial development programs, perhaps by leading a session or sharing experiences
IP Creation and Revenue Generation	Has not yet created intellectual property or generated revenue through	Has developed intellectual property with potential for commercialization	Has patented intellectual property or generated initial revenue through	Has successfully commercialized intellectual property and generated

	entrepreneurial activities		entrepreneurial activities	significant revenue
Institutional Recognition	Has not yet received recognition for entrepreneurial activities	Has been recognized internally for engagement in entrepreneurial activities	Has been recognized institution-wide for entrepreneurial activities	Has received external recognition (media coverage, awards, etc.) for entrepreneurial activities

**IV. Project Integration and Development**

**1. Initiating Solution-Based Projects Using Design Thinking Methodology:**

In the initial phase of the course, a series of workshops will introduce learners to the five stages of Design Thinking - Empathize, Define, Ideate, Prototype, and Test. Following this, learner teams will initiate solution-based projects by identifying a problem in the field of bioconvergence that they intend to tackle.

**Example:** learners could explore challenges within dental implantation techniques, drawing from their understanding of Design Thinking to brainstorm innovative and cost-effective solutions.

**2. Evaluation and Trajectory Decision:**

Following the prototyping stage, projects will be evaluated on potential impact, feasibility, and scalability by an internal review committee. This assessment will guide the project's future trajectory, be it as a solution-based project, startup, or academic research.

**Example:** If a project devises a more cost-effective method of

dental implantation, it could be channeled as a solution-based project and commercialized through JICATE Solutions.

3. **Research Support:**

The institution will offer research assistance and resources to facilitate project development. This support includes access to research articles, lab equipment, and relevant mentors.

**Example:** If a team is developing a new biocompatible material for dental implants, they will receive all necessary guidance and resources for their research.

4. **Promoting User-Centric Approach:**

To ensure the development of truly beneficial solutions, projects will involve potential end-users, such as patients, doctors, or dental technicians. This user-centric approach will inform the needs and pain points that the projects aim to address.

**Example:** A team developing dental imaging technology could conduct interviews and observations with dentists to comprehend their needs more accurately.

5. **Encouraging Cross-Disciplinary Collaboration:**

Project teams will be encouraged to collaborate with learners or Learning Facilitators from other departments if their project involves elements such as machine learning or AI. This multi-disciplinary approach can lead to more comprehensive solutions.

**Example:** An AI-based diagnostic tool for oral cancers can be developed more effectively if the project team collaborates with AI experts from the computer science department.

## **Academic Research Integration**

1. **Directing Significant Projects Towards Academic Research:**

Projects that have the potential to contribute significantly to academic knowledge and scientific understanding will be channeled towards academic research.

**Example:** Consider a project that pioneers a new approach to tackle periodontal disease using bioconvergent technologies, leading to new insights about the disease mechanism. This substantial contribution to academic knowledge would warrant its progression

towards academic research, with the team focusing on experimental studies and comprehensive data collection.

2. **Opportunities for Publication in Academic Journals:**

Upon completion of data collection and analysis, project teams can craft a research paper detailing their findings. Guidance will be provided on structuring the paper, clearly articulating the findings, and selecting an appropriate academic journal for submission.

**Example:** A research paper shedding light on new molecular insights into oral cancer pathogenesis could be considered for submission to renowned journals such as the Journal of Oral Pathology & Medicine.

3. **Presentation Opportunities at Academic Conferences and Symposiums:**

learners will be encouraged and supported to present their findings at relevant academic conferences or symposiums. This platform allows them to share their insights with the broader scientific community and receive valuable feedback.

**Example:** A team conducting innovative research on the utilization of stem cells in dental restorations could present their work at an event like the International Conference on Oral and Maxillofacial Surgery.

## **Building Entrepreneurial Culture**

1. Organizing Regular Entrepreneurship Workshops and Training Programs by Hosting frequent workshops and training programs where successful entrepreneurs share their insights, along with training sessions on relevant topics such as business plan writing, customer validation, and marketing strategies.

- **Example:** The institution can host monthly or bi-monthly workshops where successful entrepreneurs are invited to share their journey and insights. For instance, a founder of a successful dental startup could discuss how they ideated, validated, and brought their product to market. Additionally, training programs can be organized on topics such as business plan writing, customer validation, marketing strategies, etc. These programs



can be delivered by industry professionals or Learning Facilitator members with entrepreneurial experience.

2. Promoting Intrapreneurship Initiatives by encouraging learners and Learning Facilitator to innovate within the institution, whether through research projects, operational improvements, or new initiatives that can contribute to institutional growth.
  - **Example:** Encouraging learners and Learning Facilitator members to undertake innovative projects within the institution. This could be in the form of research projects, operational improvements, or new initiatives that can contribute to the institution's growth. For instance, learners could propose a new way to digitize patient records or improve the appointment scheduling system, which they can implement under the guidance of Learning Facilitator members.
3. Sharing Entrepreneurial Success Stories by Regularly spotlighting learners, alumni, or Learning Facilitators who have made significant strides in entrepreneurship to inspire others within the institution. This can be achieved through newsletters, social media posts, or presentations during college events.
  - **Example:** Regularly spotlighting learners, alumni, or Learning Facilitator members who have successfully started a venture, achieved significant progress in their startup, or received external funding. This could be done through newsletters, social media posts, or presentations during college events. For instance, an alumnus who has started a successful oral health product company can be invited to share their story, discussing their challenges, learnings, and achievements, thus inspiring other learners to explore entrepreneurship.

### **Utilization of Brainstorming and Training Room at NLB**

1. **Kick-off Meetings:** These meetings will occur at the start of the project, perhaps in the first week of the academic year. For instance, learners and Learning Facilitator will gather to discuss the objectives of the project, the expected outcomes, and the approach to be adopted.

2. **Weekly Brainstorming Sessions:** Teams will meet in the room weekly to brainstorm ideas, solve problems, and innovate on their projects. For example, during a session, a team might brainstorm ways to improve a dental procedure or come up with new ideas for dental tools.
3. **Ideation and Design Thinking Workshops:** NLB can conduct workshops to teach learners and Learning Facilitator about the principles of design thinking and how to apply them to their projects. These workshops could involve activities like empathy mapping, idea generation, prototyping, etc.
4. **Project Updates & Reviews:** Regular sessions will be held where each team presents updates on their project. For instance, a team could share their progress on developing a new dental tool, their challenges, and their plan of action for the next phase.
5. **Training Sessions:** These can be sessions focused on developing specific skills like project management, research methodologies, business strategy, or even soft skills like leadership and communication.
6. **Final Presentations:** At the end of the academic year, teams will present their projects in front of a panel that could include Learning Facilitator members, external experts, and peers. The presentations would focus on the journey of the project, the outcomes, learnings, and next steps.
7. **Continuity Meetings:** These meetings will ensure the continuity of projects from one batch to the next. For instance, if a team of final-year learners is passing on a project to a junior team, they could hold a continuity meeting to discuss the project's status, future plans, and any advice or recommendations.

### **Transition Based on Project Trajectory**

1. **Identification of project trajectory:** After 25 months into the BDS course, the project teams will undergo an internal assessment using the Project Trajectory Rubric. For example, a project developing a new dental tool that simplifies a common procedure could be identified as a solution-based project for commercialisation via JICATE Solutions, considering its market potential and practicality. If another project involves a novel technique that could potentially revolutionize dental procedures, it could be considered for incubation as a startup at NLB.

On the other hand, a project with significant scientific contribution might be directed towards academic research.

2. **Guidance and support for the chosen trajectory:** Once the trajectory has been identified, specific support measures would kick in:
  - For solution-based projects, this could mean providing them with business development support, helping them to formulate a go-to-market strategy, and connecting them with potential customers or clients. For instance, if a solution-based project involves developing a new dental software, the team could be introduced to dental practices that could be interested in their software.
  - For startups, they would receive mentorship, funding, and access to infrastructure at NLB. For example, if a startup is working on a new bioconvergent solution, they could be paired with experienced entrepreneurs in the same field, receive seed funding, and have access to labs and other facilities at NLB.
  - For academic research projects, the learners will be provided with research guidance, support for publication in academic journals, and opportunities to present at academic conferences. For instance, a team working on a research project exploring the link between oral health and systemic diseases could be paired with a Learning Facilitator member experienced in this field, get assistance in preparing their paper for submission to a reputable academic journal, and be encouraged to present their findings at relevant conferences.
3. **Facilitation of continuity across batches through versioning of projects:** Regardless of the chosen trajectory, projects will be versioned to ensure continuity. The project's existing version will be handed over to the next batch, along with all related documentation, prototypes, research, and other relevant materials. For example, a project that was identified as a solution-based project will be continued by the next batch, working on Version 2.0, while learning from the experiences and feedback of the previous batch.

Criteria	Scale 1	Scale 2	Scale 3	Scale 4	Scale 5
Market Potential	No identifiable market for the solution	A small niche market exists	Moderate market potential, though competition is significant	High market potential with some competition	High market potential with limited or no competition
Scalability	The solution can only be used in very specific and limited situations	The solution has some scope for expansion but is largely constrained	The solution can be moderately scaled, but there are significant barriers	The solution is highly scalable but faces some barriers	The solution is highly scalable with few or no barriers

<p>Innovativeness</p>	<p>The solution does not offer any novel elements or improvements over existing solutions</p>	<p>The solution presents minor improvements over existing ones</p>	<p>The solution includes some innovative aspects that differentiate it moderately from existing solutions</p>	<p>The solution is significantly innovative, offering unique features or processes</p>	<p>The solution is highly innovative, offering groundbreaking features or processes</p>
<p>Feasibility</p>	<p>Significant technical challenges and resources are required to develop the solution</p>	<p>The solution has several technical challenges to overcome</p>	<p>The solution is moderately feasible with some technical issues to resolve</p>	<p>The solution is highly feasible with minor technical challenges</p>	<p>The solution is fully feasible with no significant technical challenges</p>

Societal Impact	The solution does not offer significant societal benefits	The solution has minor societal impact	The solution offers moderate societal benefits	The solution has a high potential for positive societal impact	The solution has the potential for very high or transformative societal impact
-----------------	---	--	--	--	--

The trajectory decision of whether the project becomes a solution-based project, a startup, or taken up for further research could be determined as follows:

1. **Solution-Based Project:** If a project scores high on feasibility and societal impact but relatively lower on scalability and novelty, it might be more suitable for a practical application. Such projects might not contribute new knowledge to the field but they can help solve a particular problem effectively in the local context.
2. **Startup:** If the project scores high on market potential, scalability, and novelty, it could be ideal for a startup trajectory. These projects have the potential to create a significant impact, not just in terms of research but also in the creation of new products, services, or methodologies.
3. **Academic Research:** If a project scores high on novelty but may be low on feasibility and market potential, it would be most suitable for further academic research. These projects may need more time and resources to develop, but they could contribute significant new knowledge or innovations to the field.

This approach allows the learners to contribute meaningfully to various aspects of dental healthcare - from providing localized solutions to contributing to the larger body of knowledge in the field, and even potentially creating successful startups. This rubric provides a structured way to evaluate and guide these contributions.

The overall scores on each criterion and the balance between them should guide the decision on the project trajectory. However, these decisions should also be informed by expert judgment, considering factors such as the alignment with strategic priorities, availability of resources, and external market factors.

**Scoring sheet :**

<b>Project Name</b>	<b>Feasibility (1-5)</b>	<b>Societal Impact (1-5)</b>	<b>Scalability (1-5)</b>	<b>Market Potential (1-5)</b>	<b>Innovativeness (1-5)</b>	<b>Total Score</b>	<b>Project Trajectory</b>
Project A							
Project B							
Project C							

In the table, the evaluator would score each project from 1 (lowest) to 5 (highest) for each criterion. After scoring all the criteria, the scores would be totaled. Based on the scores and the balance between them, the evaluator would decide on the potential trajectory of the project: whether it's more suitable as a solution-based project, a startup, or a research focus.

This scoring sheet could be part of the regular project review process, helping guide the future direction of the project based on its strengths and potential.

### **Funding Support and Transition to NLB or JICATE Solutions**

1. Guidance for transfer of promising projects to NLB or JICATE Solutions: Promising projects identified during the Project Trajectory Assessment will receive guidance for transitioning their projects either to NLB or JICATE Solutions, depending on their nature and potential. For example, a project offering a novel method for dental implant surgery might be guided through the procedures required for transitioning to NLB, while a project proposing an innovative administrative solution for dental clinics could be directed towards JICATE Solutions.
2. Alignment with NLB's or JICATE Solutions' eligibility and admission process: Both learner and Learning Facilitator teams will be provided with information about the admission process of either NLB or JICATE Solutions. Projects transitioning to either of these platforms will be expected to align with their respective focus areas. For example, a project developing an AI-driven diagnostic tool for dental diseases would align with NLB's focus on bioconvergence, while a project aimed at improving dental clinic management could be suitable for JICATE Solutions.
3. Encouragement for iterative prototyping and testing at NLB or within JICATE Solutions: Projects transitioning to either NLB or JICATE Solutions will be encouraged to use an iterative approach in prototyping and testing their ideas. For instance, a project working on a new dental imaging software can utilize the high-tech facilities at NLB to continually refine their product, while a project improving dental clinic appointment systems can test and refine their software within JICATE Solutions.
4. Access to funding support, mentorship, infrastructure, and support services through NLB or JICATE Solutions: Startups transitioning to NLB or projects transferred to JICATE Solutions will have access to funding, mentorship, cutting-edge infrastructure, and various support services. For example, a startup developing a new biocompatible material for dental implants could be assigned a mentor who is an expert in the



field, have access to NLB's advanced labs, and receive support in patenting their invention, while a project at JICATE Solutions may receive similar support tailored to its specific requirements.

5. **Facilitation of industry linkages and alumni networking via NLB or JICATE Solutions:** Both NLB and JICATE Solutions can provide industry connections and networking opportunities to help projects gain valuable insights, form collaborations, and potentially secure additional funding. For instance, a startup creating an innovative dental prosthetic could be introduced to prominent dental equipment manufacturers through NLB, leading to beneficial partnerships or investments.
6. **Increased funding avenues available to learners and Learning Facilitator through grants, loans, or tax breaks:** The institution, in conjunction with NLB or JICATE Solutions, will provide guidance and support in accessing various funding avenues. For instance, a team developing a novel oral cancer detection tool could be guided towards specific healthcare research grants, or educated about loan schemes and tax benefits designed to encourage healthcare innovation.

## **Policy Accessibility**

1. **Making the policy easy to understand, navigate, and use for both learners and Learning Facilitator:** The policy will be designed in a clear and concise language, avoiding excessive jargon. A clear contents section will be included, along with relevant sub-headings for easier navigation. For instance, an online, interactive version of the policy could highlight key sections and provide pop-up explanations of specific terms when clicked.
2. **Creation of a dedicated website or an online resource center providing information about the policy, application procedures for funding, and additional support resources:** A dedicated website or portal will be created where all the necessary information related to the policy is available. This could include step-by-step guides for applying for funding, downloadable templates for project proposals, links to external resources for further learning, and a FAQ section addressing common questions and concerns. For instance, a learner looking to

understand how to apply their project for startup incubation can find a step-by-step guide on the portal.

## **Success Tracking**

1. **Regular tracking of milestones and progress reporting for startups, projects, and academic research:** There will be a system for tracking the progress of various initiatives. For instance, a project management tool can be used where learners can update their progress against each milestone, allowing the Learning Facilitator and administrators to track progress in real-time.
2. **Benchmarking against other incubation programs:** The policy will include mechanisms to compare the performance of the incubated startups or research projects against similar programs in other institutions or regions. For example, annual reports could include comparative analysis on parameters like number of patents filed, funding secured, jobs created, etc.
3. **Continuous feedback and iterative improvements:** A feedback loop will be established to gather suggestions and identify areas of improvement in the policy implementation. For instance, learners and Learning Facilitators could be regularly surveyed for their feedback, and the policy could be revised annually based on the insights gathered.

## **Review and Approval**

1. **Submission of project proposals for review:** Project proposals will need to be submitted for review as per the prescribed format and timeline. For instance, a learner team looking to transition their project to NLB would need to submit a detailed proposal including their idea, research so far, market analysis, team details, and a proposed business model.
2. **Approval by a committee comprising Learning Facilitator, administration, and external members:** A committee will be responsible for reviewing and approving the project proposals. This committee could include experienced Learning Facilitator members, administrative staff who oversee the policy implementation, and external members like industry experts or representatives from NLB. For instance, a project proposal could be evaluated based on its

innovative approach, feasibility, potential impact, alignment with the institution's mission, and the team's capabilities.

Here is a representation of the roles and responsibilities of the stakeholders using the RACI (Responsible, Accountable, Consulted, Informed) matrix.

<b>Stakeholders</b>	<b>Adopt Policy</b>	<b>Develop Projects</b>	<b>Evaluate Projects</b>	<b>Approve Projects</b>	<b>Implement Projects</b>	<b>Track Success</b>
learners	I	R	I	I	R	I
Learning Facilitator Members	I	R	A	I	R	I
Administration of JKKN Dental College and Hospital	A	C	C	A	C	A

Review and Approval Committee	C	I	A	R	I	I
Centers of Excellence (CoE)	C	C	R	C	C	R
NLB and JICATE Solutions	I	C	I	C	A	I
Industry Partners	I	I	I	I	C	I
Alumni	I	I	I	I	I	C
Funding Entities	I	I	I	I	C	I

**Roles and Responsibilities for the Principal:**

- **Policy Oversight:**

- Ensure that the CoE policy is clear, concise, and aligned with the institution's mission.
- Develop and implement procedures for the review and approval of project proposals, considering AI integration and eligibility for NLB or JICATE Solutions.
- **Committee Leadership:**
  - Chair the CoE committee and lead its efforts to promote AI integration and research within the institution.
  - Facilitate discussions and decision-making, ensuring that the committee's recommendations align with the CoE's goals.
- **Resource Allocation:**
  - Allocate funding, infrastructure, and support services to CoE projects in a fair and equitable manner.
  - Prioritize projects that align with the CoE's focus and involve AI tools and techniques.
- **AI Education Promotion:**
  - Develop and implement a plan to introduce AI training sessions and workshops for learners and learning facilitators.
  - Collaborate with faculty and staff to ensure that AI education is accessible to all members of the community.
- **AI Integration and Research Promotion:**
  - Encourage and support the integration of AI into projects and research across the institution.
  - Facilitate collaboration between AI researchers and practitioners from different disciplines.
- **Ethical Guidelines:**
  - Develop and implement ethical guidelines for the use of AI in research and projects.
  - Ensure that all CoE projects comply with these guidelines.
- **AI in Entrepreneurial Ventures:**
  - Support and provide mentorship for learners and learning facilitators interested in developing AI-powered startups.
  - Facilitate access to funding, resources, and networks that can support their entrepreneurial endeavors.

- **Presentation Opportunities:**
  - Identify and support opportunities for learners to present their AI-related project findings at conferences, seminars, and symposiums.
  - Raise awareness of the CoE's work and promote the adoption of AI solutions.
- **Success Tracking:**
  - Develop and implement metrics to track the progress and milestones of CoE projects and research.
  - Use this data to inform resource allocation and decision-making.
- **Funding Support and Transition Guidance:**
  - Guide promising CoE projects to NLB or JICATE Solutions, providing support and mentorship throughout the transition process.
  - Ensure that these projects align with the CoE's focus and the policy's objectives.
- **Alignment with Admission Process:**
  - Collaborate with NLB and JICATE Solutions to ensure that CoE projects adhere to their eligibility and admission requirements.
  - Ensure a smooth transition for projects that are selected for funding and support.
- **Encouragement of Iterative Prototyping:**
  - Promote the use of iterative prototyping and testing for all CoE projects, especially those transitioning to NLB or JICATE Solutions.
  - Ensure projects are well-defined and aligned with user and stakeholder needs.
- **Access to Support Services:**
  - Facilitate access to funding, mentorship, infrastructure, and support services available through NLB or JICATE Solutions for CoE projects.
  - Ensure projects have the resources needed to succeed.
- **Industry Linkages and Alumni Networking:**

- Encourage the establishment of industry connections and alumni networking opportunities for CoE projects, startups, and academic research.
- Promote collaboration and innovation, facilitating the development of market-ready AI solutions.
- **Promoting Funding Avenues:**
  - Collaborate with NLB, JICATE Solutions, and other institutions to provide guidance on various funding avenues, grants, loans, and tax benefits.
  - Ensure projects have access to the financial resources needed for success.
- **Policy Accessibility:**
  - Ensure that the CoE policy is written in a clear and concise language with a user-friendly format.
  - Make the policy available to all members of the community and provide support and training to help them understand and implement its provisions.
- **Review and Approval:**
  - Oversee the submission and review process for CoE project proposals.
  - Work with the CoE committee to ensure that approved proposals align with the institution's mission and the CoE's goals.

### **Roles and Responsibilities for a Mentor:**

- **Policy Implementation:**
  - Provide guidance to learners and learning facilitators on how to comply with the CoE's policy on AI integration, data governance, and responsible AI use.

- Assist in developing and implementing project-level policies and procedures aligned with the CoE's overall policy framework.
- **Committee Participation:**
  - Participate in CoE committee meetings and provide insights and perspectives on project-specific issues and challenges.
  - Share knowledge and expertise on AI integration, responsible AI use, and best practices with other CoE members.
- **Project-Level Guidance:**
  - Work with learners and learning facilitators to develop and refine their project goals and objectives.
  - Provide guidance on the selection and use of appropriate AI tools and techniques.
  - Assist with project planning, including the development of timelines, milestones, and budgets.
- **AI Integration:**
  - Help learners and learning facilitators identify and evaluate opportunities for AI integration within their projects.
  - Provide guidance on the design and implementation of AI solutions.
- **Ethical AI Use:**
  - Educate learners and learning facilitators on the ethical implications of AI development and use.
  - Help identify and mitigate potential biases in AI solutions.
- **AI in Entrepreneurial Ventures:**
  - Mentor learners and learning facilitators interested in developing AI-powered startups.
  - Provide guidance on business model development, marketing, and fundraising.
- **Presentation Support:**
  - Assist learners in developing and delivering effective presentations on their AI projects.
  - Provide feedback on content, structure, and delivery of presentations.



- **Progress Tracking:**
  - Regularly meet with learners and learning facilitators to discuss project progress and identify challenges or roadblocks.
  - Provide feedback on project deliverables and help develop improvement plans.
- **Resource Utilization:**
  - Help learners and learning facilitators identify and access the resources needed to complete their projects.
  - Advise on efficient resource utilization and develop contingency plans for unexpected shortages.
- **Funding Access:**
  - Assist learners in applying for funding from the CoE, NLB, JICATE Solutions, and other external sources.
  - Provide guidance on grant proposals and pitch development.
- **Networking:**
  - Connect learners and learning facilitators with other CoE members, industry experts, and alumni.
  - Organize events to facilitate networking and collaboration.
- **Iterative Development:**
  - Encourage learners to adopt an iterative approach to project development.
  - Provide guidance on user testing and feedback collection.
- **Alignment with Admission Requirements:**
  - Help learners understand the eligibility and admission requirements for NLB and JICATE Solutions.
  - Ensure project proposals align with the admission requirements of external platforms.
- **Policy Navigation:**
  - Assist learners in understanding the CoE's policy on AI integration, data governance, and responsible AI use.
  - Provide guidance on compliance with policy provisions.

## **ROADMAP.**

### **For Candidates starting a new project,**

Year 1: Orientation, Empathizing, and Defining

Stage 1: Orientation (3%)

This stage takes place in the NLB Brainstorming and Training Room with a single session lasting 2 hours.

**Task 1.1:** Attend the orientation session and understand the policy, objectives, and the design thinking approach (1%)

#### **Subtasks:**

- Attend the orientation session.
- Understand the project policy: rules, regulations, guidelines, and expected conduct.
- Learn the objectives of the project: the intended outcome, purpose, and goals.
- Understand the design thinking approach: its steps, purpose, and relevance to the project.

**Task 1.2:** Participate in Q&A, review policy documentation (1%)

#### **Subtasks:**

- Actively participate in the Q&A session: asking relevant questions, clearing any doubts.
- Review the policy documentation: reading through, understanding the details, and noting down any queries for clarification.

**Task 1.3:** Understand and discuss the concept of versioning in the context of the solution-based project (1%)

**Subtasks:**

- Learn the concept of versioning: what it is, why it's essential, and its role in the project.
- Engage in discussion with mentors and peers about versioning in the context of the project.

Stage 2: Empathizing (12%)

In this stage, learners participate in monthly sessions that last 2 hours each in the NLB Brainstorming and Training Room.

**Task 2.1:** Attend empathy sessions, interact with potential users, and identify problem areas related to dental healthcare from a multidisciplinary perspective (4%)

**Subtasks:**

- Attend the empathy sessions: listening to the experiences of potential users.
- Interact with potential users: asking insightful questions to understand their problems better.
- Identify problem areas: noting down areas of concern from the potential users' perspective.
- Apply a multidisciplinary approach: using insights from different disciplines to identify problems more comprehensively.

**Task 2.2:** Reflect on the interactions and experiences, synthesize the findings, and identify key themes or areas of concern (4%)

**Subtasks:**

- Reflect on the interactions: contemplating the discussions with potential users.
- Synthesize the findings: combining and analyzing the data collected to form a clear picture of the problem.

- Identify key themes or areas of concern: drawing out the main problems that need to be addressed.

**Task 2.3:** Collaborate with team members from different disciplines to define clear and concise problem statements (4%)

**Subtasks:**

- Collaborate with team members: sharing findings and insights, listening to each other's viewpoints.
- Define problem statements: transforming the identified issues into concise statements that capture the essence of the problem.

Stage 3: Defining (10%)

This stage involves monthly sessions in the NLB Brainstorming and Training Room that last 2 hours each.

**Task 3.1:** Attend defining sessions, discuss the problem areas, and refine the problem statements (3%)

**Subtasks:**

- Attend defining sessions: participating in focused discussions about the problem statements.
- Discuss problem areas: sharing and debating the problem areas identified in the empathy stage.
- Refine problem statements: improving and finalizing the problem statements based on the discussion.

**Task 3.2:** Develop a shared understanding of the problem statements from a multidisciplinary perspective (4%)

**Subtasks:**

- Develop a shared understanding: ensuring each team member understands the problem statements, regardless of their discipline.

- Foster a multidisciplinary perspective: appreciating and integrating the diverse perspectives that each discipline brings to understanding the problem.

**Task 3.3:** Identify potential areas for versioning in the project (3%)

**Subtasks:**

- Identify areas for versioning: figuring out elements of the project that could evolve and improve over time.
- Discuss these areas: engaging in discussions about why these areas are suitable for versioning and how versioning might take place.

**For Candidates continuing from an existing project.**

Year 1: Transition, Understanding, and Planning

**Stage 1:** Transition (3%)

This stage takes place in the NLB Brainstorming and Training Room with a single session lasting 2 hours.

**Task 1.1:** Attend the transition session and understand the project handover, objectives, and current project status (1%)

**Subtasks:**

- Attend the transition session.
- Understand the project handover process: rules, regulations, guidelines, and expected conduct.
- Learn the existing project status: achievements, challenges, and future goals.

**Task 1.2:** Participate in Q&A, review project documentation (1%)

**Subtasks:**

- Actively participate in the Q&A session: asking relevant questions, clearing any doubts.

- Review the project documentation: reading through, understanding the details, and noting down any queries for clarification.

**Task 1.3:** Understand and discuss the concept of versioning in the context of the solution-based project (1%)

**Subtasks:**

- Learn the concept of versioning: what it is, why it's essential, and its role in the project.
- Engage in discussion with mentors and peers about versioning in the context of the project.

Stage 2: Understanding (12%)

In this stage, learners participate in monthly sessions that last 2 hours each in the NLB Brainstorming and Training Room.

**Task 2.1:** Attend project understanding sessions, interact with previous cohort, and identify project areas related to dental healthcare from a multidisciplinary perspective (4%)

**Subtasks:**

- Attend the project understanding sessions: listening to the experiences of the previous cohort.
- Interact with the previous cohort: asking insightful questions to understand their work better.
- Identify project areas: noting down areas of interest or concern from the project perspective.
- Apply a multidisciplinary approach: using insights from different disciplines to understand the project more comprehensively.

**Task 2.2:** Reflect on the project and experiences, synthesize the findings, and identify key themes or areas of concern (4%)

**Subtasks:**

- Reflect on the project: contemplating the work done by the previous cohort.
- Synthesize the findings: combining and analyzing the information collected to form a clear picture of the project status.
- Identify key themes or areas of concern: drawing out the main issues that need to be addressed in the project's next phase.

**Task 2.3:** Collaborate with team members from different disciplines to define clear and concise objectives for the new version (4%)

**Subtasks:**

- Collaborate with team members: sharing findings and insights, listening to each other's viewpoints.
- Define objectives: transforming the identified issues into concise statements that capture the essence of the objectives for the new version of the project.

**Stage 3:** Planning (10%)

This stage involves monthly sessions in the NLB Brainstorming and Training Room that last 2 hours each.

**Task 3.1:** Attend planning sessions, discuss the project areas, and refine the project objectives (3%)

**Subtasks:**

- Attend planning sessions: participating in focused discussions about the project objectives.
- Discuss project areas: sharing and debating the project areas identified in the understanding stage.
- Refine project objectives: improving and finalizing the objectives based on the discussion.

**Task 3.2:** Develop a shared understanding of the project objectives from a multidisciplinary perspective (4%)

**Subtasks:**

- Foster a multidisciplinary perspective: appreciating and integrating the diverse perspectives that each discipline brings to the project's next iteration.
- Brainstorm potential approaches to achieve objectives: discussing ideas and strategies for realizing the project objectives.

**Task 3.3:** Identify potential areas for versioning in the project and establish a roadmap for the next iteration (3%)

**Subtasks:**

- Identify areas for further versioning: figuring out elements of the project that could continue to evolve and improve in the next iteration.
- Discuss these areas: engaging in discussions about why these areas are suitable for versioning and how the next iteration might unfold.
- Establish a roadmap: with guidance from Learning Facilitator and feedback from previous candidates, draft a roadmap outlining the steps and milestones for the next iteration of the project.

Year 2: Ideation, Prototype Development, and Testing

Stage 1: Ideation (15%)

This stage takes place in the NLB Brainstorming and Training Room with monthly sessions lasting 2 hours each.

**Task 1.1:** Attend ideation sessions and brainstorm potential solutions for the identified problem statements (5%)

**Subtasks:**

- Attend ideation sessions: Actively participate in brainstorming sessions.
- Generate ideas: Think broadly and creatively to come up with a diverse range of possible solutions.



- Document ideas: Keep track of all proposed solutions for later analysis.

**Task 1.2:** Analyze the ideas from a multi-disciplinary perspective and refine them (5%)

**Subtasks:**

- Analyze ideas: Consider the strengths, weaknesses, and feasibility of each proposed solution.
- Apply multidisciplinary perspectives: Incorporate insights from different disciplines when analyzing potential solutions.
- Refine ideas: Based on analysis, improve promising ideas and discard or set aside less promising ones.

**Task 1.3:** Finalize the best solution(s) and outline a plan for developing a prototype (5%)

**Subtasks:**

- Finalize solutions: Make a final decision on the most promising solution or solutions.
- Outline prototype development plan: Identify necessary resources, steps, and a timeline for creating a prototype of the chosen solution.

Stage 2: Prototype Development (20%)

This stage also takes place in the NLB Brainstorming and Training Room with monthly sessions lasting 2 hours each.

**Task 2.1:** Attend prototype development sessions and start creating low-fidelity prototypes (7%)

**Subtasks:**

- Attend prototype development sessions: Participate actively in these sessions.

- Develop low-fidelity prototypes: Create basic versions of the chosen solution that can be tested and refined.

Task 2.2: Use multi-disciplinary inputs to refine the prototype and make it more inclusive and effective (7%)

**Subtasks:**

- Gather multidisciplinary inputs: Collect feedback and ideas from team members from different disciplines.
- Refine the prototype: Incorporate this feedback to make the prototype more inclusive and effective.

Task 2.3: Finalize low-fidelity prototype and prepare for testing phase (6%)

**Subtasks:**

- Finalize low-fidelity prototype: Make any final changes and ensure the prototype is ready for testing.
- Prepare for testing phase: Plan how to collect feedback and what criteria will be used to assess the prototype's effectiveness.

Stage 3: Prototype Testing (10%)

This stage takes place in the NLB Brainstorming and Training Room with monthly sessions lasting 2 hours each.

**Task 3.1:** Attend testing sessions, gather feedback on the prototype (3%)

**Subtasks:**

- Attend testing sessions: Actively participate in these sessions.
- Gather feedback: Collect observations and comments from potential users and other testers.

**Task 3.2:** Analyze the feedback from a multi-disciplinary perspective and identify areas of improvement (3%)

**Subtasks:**

- Analyze feedback: Review feedback to identify trends, patterns, and areas of concern.
- Apply multidisciplinary perspectives: Use insights from different disciplines to better understand feedback and potential improvements.

**Task 3.3:** Refine the prototype based on the feedback received (4%)

**Subtasks:**

- Refine the prototype: Make necessary adjustments to the prototype based on the feedback analysis.
- Document changes: Keep track of changes made for future reference and for communicating improvements to stakeholders.

**Year 3:** Testing, Refinement, Submission, and Continuation

**Stage 1:** Testing and Refinement (10%)

This stage takes place in the NLB Brainstorming and Training Room with monthly sessions lasting 2 hours each.

**Task 1.1:** Attend testing and feedback sessions and start refining prototypes based on feedback (3%)

**Subtasks:**

- Attend testing and feedback sessions: Participate in testing and feedback sessions.
- Gather feedback: Collect comments and observations from potential users and other testers.
- Refine prototypes: Make adjustments to the prototypes based on the feedback received.

**Task 1.2:** Use multi-disciplinary insights to ensure solution is inclusive and applicable in various contexts (3%)

**Subtasks:**

- Apply multidisciplinary insights: Utilize the insights from different disciplines to evaluate and refine the solution.
- Evaluate inclusivity: Ensure the solution is inclusive and accounts for various needs and perspectives.
- Check applicability: Assess the solution's practicality and versatility in various contexts.

**Task 1.3:** Refine and finalize the project, ready for trajectory assessment (4%)

**Subtasks:**

- Finalize refinement: Make any final adjustments to the solution based on feedback and evaluations.
- Prepare for trajectory assessment: Ensure the project is ready for the trajectory assessment stage, with all necessary documentation and plans in place.

**Stage 2:** Project Trajectory Assessment (10%)

This stage involves one session in the NLB Brainstorming and Training Room lasting 2 hours.

**Task 2.1:** Attend project trajectory assessment and present project progress and plans (3%)

**Subtasks:**

- Prepare for presentation: Create a comprehensive presentation on the project's progress and future plans.
- Attend project trajectory assessment: Attend the session and present the project to the assessment committee.

**Task 2.2:** Receive and understand feedback from the assessment committee (3%)

**Subtasks:**

- Receive feedback: Collect feedback from the assessment committee.
- Understand feedback: Review the feedback thoroughly to understand the committee's comments and suggestions.

**Task 2.3:** Determine the potential trajectory of the project: solution-based project, startup, or academic research (4%)

**Subtasks:**

- Analyze project and feedback: Evaluate the project's potential based on its progress and the feedback received.
- Determine trajectory: Decide on the best future path for the project, whether as a solution-based project, a startup, or an academic research project.

**Stage 3:** Project Continuation and Handover (10%)

**Task 3.1:** Prepare the comprehensive project report (3%)

**Subtasks:**

- Write project report: Write a comprehensive report detailing the project's work, methodologies, findings, and future plans.
- Format report: Ensure the report is formatted clearly and professionally, following a suitable academic structure.

**Task 3.2:** Submit the project report within the institution for review and assessment (2%)

**Subtasks:**

- Prepare for submission: Finalize the project report and ensure all requirements are met before submission.
- Submit project report: Formally submit the project report within the institution for review and assessment.

**Task 3.3:** Document the current project status, challenges, and potential directions for the next batch to take over and continue the project (5%)

**Subtasks:**

- Document project status: Write a thorough report of the current status of the project, including work done and progress made.
- Document challenges: Detail any challenges encountered during the project and how they were addressed.
- Outline potential future directions: Suggest potential directions for the next batch of learners who will continue the project.