SIGFF

**Academy of Future Education**

**Special Interest Group (SIG) Research Application Form V1**

**An Ecosystemic Approach To Transforming Higher Education: Theory and Practice of XJTLU 3.0 Education Model**

**(Research Proposal for the AoFE’s SIG Research Project)**

Jian Chen

Date: December 22, 2023

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Basic Information** | | | | | | | |
| **A. Principal Investigator** | | | | | | | |
| Name | | | Jian Chen | | | Unit | ILEAD |
| Academic Title | | | Assistant Professor | | | Position | Head of New Professional Education (NPE) Division |
| Appointment Start Date | | | July 5th, 2021 | | | | |
| Main Research Field | | | Cooperative and Work-integrated Education (CWIE) | | | | |
| **B. Project** | | | | | | | |
| Title | | An Ecosystemic Approach To Transforming Higher Education: Theory and Practice of XJTLU 3.0 Education Model | | | | | |
| Title in Chinese (If applicable)  课题名称 | | 以创新生态促高等教育变革：西交利物浦大学3.0教育模式的理论与实践 | | | | | |
| Key words (maximum 5) | | Innovation ecosystem, XJTLU 3.0, education model, theory and practice | | | | | |
| Duration | | One year | | | | | |
| Total Funding Requested | | RMB 100,000 | | | | | |
| Resubmission or not | | YES Ref: ☑ NO | | | | | |
| **C. External Collaborative Schools within XJTLU/Other University/Institution (if any)** | | | | | | | |
| Academy of Pharmacy (AoPHA), JITRI Academy and Academy of Film and Creative Technology (AoFCT) | | | | | | | |
| External institution and/ or industry partners of AoPHA, JITRI, AoFE and AoFCT. | | | | | | | |
| **D. Team Members (including PI)** | | | | | | | |
| No. | Name | Dept. | | Position | Task(s) | Share  (%) | External Schools within XJTLU/Other University/Institution  (if external) |
| 1 | Jian Chen | ILEAD | | Assistant Professor & Head of NPE | Coordinate seminars/ interviews with XJTLU leadership teams and external partners. Lead the research project and write up the ‘*sub-report on student learning & development through external partnerships in the ecosystem*.’ | 30% |  |
| 2 | Yingchun Li | LIFE | | Assistant Professor | Coordinate interviews with and conduct surveys on students at different levels studying at XJTLU. Write up the ‘*sub-report on students’ perspectives on and experiences with the 3.0 model in the XJTLU education ecosystem’* | 25% |  |
| 3 | Ling Wang | EDU | | Educational Developer | Coordinate interviews with academic staff in the four academies and write up the ‘*sub-report on educational values and operating models for staff to exchange knowledge and collaborate with other key stakeholders within and across the academies in the ecosystem’* | 25% |  |
| 4 | Tim London | AoFE | | Senior Associate Professor | Lead the development of the literature review; support interviews of industry leaders; contribute to writing of chapter drafts and consolidation of chapters | 20% |  |

**N.B.** Please respect word limit and provide the word count at the bottom of each section. Please don’t add appendices.

|  |
| --- |
| Abstract (up to 250 words)  Please write an Abstract of the proposed research project in non-specialist language (i.e. comprehensible to someone outside your field) to allow review panel members or other colleagues to understand your project easily. |
| Higher education institutions (HEIs) have begun recognizing their need to engage more fully with a range of stakeholders both inside and outside their institutions to address wider societal needs and issues. XJTLU is moving to create what it calls the XJTLU 3.0 Ecosystem Education Model (hereinafter referred to as ‘the 3.0 Model’), which involves a deep investment in creating and leveraging educational ecosystems to the benefit of students, educational institutions, industry, and the wider community. the 3.0 Model is a new initiative for the University, and is a key aspect of the institution’s stated strategic aims to be leaders in educational innovation and improvement, analysis of current practices related to the 3.0 Model are needed. This research project will utilize both qualitative and quantitative approaches to gather data on current learning, teaching, research, and engagement practices related to the 3.0 Model across four (4) Academies. This data will then be analyzed to identify patterns, best practices, opportunities for further development, and concerns to be addressed if the 3.0 Model is to be successful. This analysis will then be used to improve practices at XJTLU, build a theoretical model to underpin the concept of educational ecosystems, create outputs to share with interested parties (including other eduational institutions), and begin or further dialogue in the higher education space about the concepts and applications of eduational ecosystems.  Word count: 224 |

|  |
| --- |
| 1. Background (up to 500 words)  Please cite extensive references. The full references can be listed in Section 10. |
| **1.1. Ecosystem and innovation ecosystem**  Ecosystem was first introduced from a broad concept by Sir Arthur Tansley as the “biome” or “biocoenosis” or “the biotic community” including biotic (living organismes) and abiotic (physicial environment) factors (Tansley, 1939). Following this, the ecosystems concept has emerged and been discussed in many disciplines, such as biology (Mars et al., 2012; Dowd, 2019; Niemi, 2021), medicine, and healthcare (Walpole et al., 2016). Ecosystems in education was introduced by Cremin and Greene (1976) with ‘educational ecology’: studying education and the surrounding ecological environment. It highlights the urgency of creating configurations of education and the importance of engaging, cooperating, and adapting to different aspects and components in the education system, influenced by external factors such as social, economic, political, and socio-psychological circumstances. Ecosystems are the combination of living components such as learners, educators, entrepreneurs, government agencies, and non-living elements such as teaching and learning materials and education technology infrastructures that are important for effective teaching and learning (Renya, 2011). ‘Innovation ecosystem’ is a term proposed by Iansiti and Levien (2004) mostly used in business settings, which refers to an interconnected and interdependent network of organizations, individuals, resources, and policies that foster innovation and emphasize co-evolution and creation of values (Zhang et al., 2023). Successful innovation ecosystems promote collaboration, knowledge exchange, and access to resources, fostering an environment where ideas can flourish and lead to economic development. Valkokari (2015) distinguishes three types of ecosystems of knowledge, business, and innovation, concluding that innovation ecosystems integrate exploration (knowledge) and exploitation (business) ecosystems.  **1.2 Higher education institutions in the context of innovation ecosystem**  New courses and interdisciplinary research fields are blurring the lines between academic disciplines in learning processes and curricula. The introduction of new technology and research areas is also breaking down the boundaries between basic science and applied research, requiring collaboration between science and engineering disciplines. Moreover, increasing social complexities and disruptive changes in global education ecosystems demand that higher education institutions (HEIs) develop evolutionary education competencies to address social issues in a creative way. In a knowledge society, learning and knowledge production often takes place in the context of social interactions rather than in organizational contexts, which requires a role shift of HEIs to become an anchor organization in knowledge exchange, trust-building, and entrepreneurship in the innovation ecosystem (Kumari et al., 2019).  **1.3 XJTLU 3.0 model and purpose of the research project**  Since its founding, XJTLU has been dedicated to leading higher education reform and innovation featured by student-centred and future education oriented. According to HeXie Management theory (Xi et al., 2012) and Five-star Education Blueprint, the XJTLU 3.0 model is dedicated to integrating education with society, leveraging broad resources, and creating an innovative education ecosystem that further integrates university, industry, and society. Since XJTLU 3.0 is currently at its initial stage, the proposed project intends to thoroughly investigate the education, research, and partnership models among four different academies of XJTLU in the innovative ecosystem from theoretical and practical perspectives.  Word count: 493 |

|  |
| --- |
| 2. Aims and Objectives (up to 150 words) |
| The proposed project aims to evaluate the 3.0 Model both theoretically and practically by exploring the education and research models in the context of existing practices in the four academies: AoPHA, JITRI, AoFE and AoFCT. This is to ensure effective delivery of institutional degree and non-degree programmes in the 3.0 Model. The following objectives are set accordingly:  • Design a theoretical framework for the 3.0 Model which outlines the relationship among a set of interrelated concepts and elements in the education ecosystem. This framework can serve as the foundation for a framework of guiding principles to inform pedagogical practices in the four academies;  • Generate case studies by collecting and summarizing current learning and teaching practices and experience of the 3.0 Model by staff and students in the four academies;  • Disseminate the research findings for the application of the 3.0 Model to other schools and disciplines internally; promote the 3.0 Model externally.  Word count: 150 |

|  |
| --- |
| 3. Research Topics/Question(s) and Methodology (up to 700 words)  Please outline the research topics/question(s) to be addressed, and the approaches to be adopted in the project. Why is the question important? |
| * 1. **Research questions**      1. **What are the current operating models for knowledge exchange and transfer among the four academies in their respective educational ecosystems?**   HEIs are expanding their role beyond teaching and research to help solve social and economic issues. They need to incorporate societal needs into their teaching and research, and create knowledge that can address real-world problems. However, there are challenges in sharing knowledge, as industry-generated knowledge isn’t effectively used in academic programs and vice versa (Kumari et al., 2019). Therefore, it is important to study how knowledge is shared and passed between researchers, teachers, students, and industry stakeholders in the four different academies' innovation ecosystems. This will help identify best practices that can improve interactions with stakeholders and promote knowledge exchange.   * + 1. **What educational values are important to the four academies and other entities in their innovation ecosystems, and how can they collaborate to ensure the successful development of these values?**   Collaboration and social interaction are important for educational innovation in higher education institutions, as resources are limited. To promote this, HEIs should encourage collaborative learning tools and open platforms for collective action, as well as strengthen their collaboration with social actors. By examining shared public values, transformative learning processes and systemic approaches can be used to create public value in the educational ecosystem and institutions.  Value co-creation can be divided into four phases: preparing by understanding challenges and building a team, defining the challenges and engaging stakeholders, creating solutions collectively, and implementing and testing the solution (Nagore & Bynon, 2018). It would be useful to know if the four academies have had similar experiences with co-creation in program development or research collaboration, and what challenges they encountered in the process.  **3.1.3 How are learning methods being changed and remade in innovative environments in order to enhance students' learning and growth across the four academies?**  Learning is something that happens throughout life and in various settings. A learning and development (L&D) ecosystem should be created and managed to provide opportunities for learning and development through interactions with people, places, and possibilities. A strong L&D ecosystem is characterized by positive and effective interactions between its elements (Akiva, 2022).  Creating a learning experience within an innovation ecosystem can help students develop a mindset for solving societal problems and fostering social innovation. This approach enables students to engage in real-world challenges and develop critical thinking and innovative skills (Blass & Hayward, 2014). Furst-Bowe (2011) recommends using a systemic approach to change HEI educational programs, learning processes, strategy, and management, which could help address complex and diverse issues, providing a comprehensive understanding of their impact across various domains. In addition, the systemic approach allows for various viewpoints to understand a problem and make holistic decisions, aiding students in developing and implementing solutions. Therefore, it is important to examine how the four academies use this approach to transform student learning.  **3.2 Methodology**  The research project will use a mixed methods approach, consisting of qualitative and quantitative studies. The research team will conduct focus group interviews with staff and partners from the four academies to understand their current operations and implementation challenges. Additionally, a survey questionnaire will be distributed to undergraduate and postgraduate students at the four academies to gain insights into their learning experiences in the innovation ecosystems.  Word count: 547 |
|  |

|  |
| --- |
| 4. Feasibility Analysis and Research Team Development Plan (up to 800 words)  Please present a Feasibility Analysis in terms of your experience and expertise, resources required etc. Where necessary, identify potential constraints to the success of the project and propose strategies to circumvent them. You must illustrate a clear Research Team Development plan to specify how the research team will work togather. |
| **4.1 Feasibility analysis**  4.1.1 My experience and expertise  Before joining XJTLU, I have worked with Suzhou Centennial Collge (SCC) – a higher vocational education and training (VET) institution which was jointly established by Suzhou University of Science and Techonology (SUST) and Centennial College (Canada). During the 10-year service term with SCC, I have had many different leadership roles such as the Deputy Head of the English Department, the Deputy Director of the Academic Affairs Office, the Director of the International Relations Office, the Dean of the School of Liberal Arts, and fianlly the Associate Vice President (AVP) – Internationalization overseeing Chinese-Canadian partnership and academic curriculum development and delivery for 5 years. I believe my extensive leadership experience working with various teams and individuals could be a valuable asset for leading this exceptional research team and project. I am a Doctor of Education (Ed.D.) final year student at East China Normal University (ECNU), which is one of China's top 30 universities, with its educational programs ranked second best in the country. Through this program, I have gained a research-focused mindset and valuable academic skills by collaborating with esteemed professors.  As the Head of New Professional Education (NPE) Division at the Academy of Future Education (AoFE), I have successfully led various projects and collaborations, resulting in the publication of impactful journal articles and conference papers. I have also secured external funding and authored a widely-distributed white paper on micro-credentials. Additionally, I have delivered keynote speeches and presentations at highly regarded international and domestic conferences, and led the establishment of influential external partnerships with 30+ entities from different sectors. Within the university, I have served on the Academic Quality Sub-Committee and the AoFE Research Committee, contributing valuable insights and expertise to shape research policies and ensure academic standards.  Other researchers in the project team have diverse academic backgrounds and practical experience in student learning and teacher development, and transnational and cross-cultural disciplinary training.  4.1.2 Resources required  The research project is demanding in terms of time and resources, involving extensive literature review, communication, coordination, event organization, visits, interviews, data collection and analysis, and collaboration with various stakeholders. Adequate personnel and funding are crucial for the project's success. Due to the existing heavy workloads of the four research members, it is recommended to recruit two Ph.D. students as research assistants and one Master's student to support the research and administrative tasks. In addition, a recording device like iFLYTEC that automatically translates and transcribes scripts needs to be purchased.  4.1.3 Potential constraints and strategies to circumvent them  Successful delivery of the research project depends heavily on collaboration across the four academies, as well as with external partners. Planned research activities may be delayed or cancelled due to absences or scheduling conflicts of interviewees or participants. Additionally, uncertainty about researchers' workloads and obligations to their departments may lead to research being put on hold during specific periods, such as for paper marking. To address these challenges, it is important to establish internal and external communication mechanisms to ensure all involved parties are well-informed and in sync. Clear timelines and workload allocation should be set up to ensure transparency, fairness, and proactive action.  **4.2 Research team development plan**  Working as a team is challenging, but it allows for endurance. The research team needs to work quickly and efficiently because of time constraints. Additionally, we must ensure individual and team growth for the SIG purpose. To address these challenges, the team leader and PI have been working closely with the team to clarify roles, leverage strengths, communicate often, and allocate tasks based on team agreement. We are also preparing a problem-solving agenda and contingency plan for unexpected issues during the research project.   * Regular email communications and informal discussions through a WeChat group will be used for communication. * Resource sharing and backup plans will be established. * The team leader will coordinate regular meetings with representatives from the four academies. * Research agendas will include coaching Ph.D. and Master students. * Seminars will be organized within the research team and with representatives from the four academies to share research progress and achievements. * Monthly updates will be reported to the Chief Officer of Education.   Word count: 688 |

|  |
| --- |
| 5. Work Plan and Timeline (up to 250 words) |
| The whole research process will be divided into 5 stages.   * Stage 1 is Planning and Preparation (1, Dec, 2023—30, Dec, 2024). The research team will organize meetings and events for research project planning and preparation. It is expected that the research design (e.g. RQs, methods and instruments) will be completed at this stage; meanwhile, RAs are recruited and work allocation is decided. * Stage 2 is Data Collection (1, Jan, 2024—29, Feb, 2024). Research instruments (interview guide and survey questions) are piloted, then further developed for credibility and validity before they are employed to collect data. * Stage 3 is Data Analysis (1, March, 2024—31, March, 2024), for the purpose of generating findings regarding the ecosystem theoretical framework, and how this is applied in practice in the 3.0 Model. * Stage 4 is Interim Report and Drafting Findings (1, April, 2024—30, May, 2024). Findings will be drafted and the research team will present a report at the XJTLU Education Transformation Conference to be held in mid-May. * Stage 5 (1 June, 2024—30, December, 2024) is Results Dissemination. The research team will refine the findings and communicate the research results via multiple channels. For example, the research team will organize seminars and participate in conferences within and outside XJTLU to present the research findings, as well as write publications.  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | Stages | Dec, 2023 | Jan-Feb, 2024 | Mar, 2024 | April-May, 2024 | June-Nov, 2024 | | S1 | Planning and Preparation |  |  |  |  | | S2 |  | Data Collection |  |  |  | | S3 |  |  | Data Analysis |  |  | | S4 |  |  |  | Interim Report and Drafting Findings |  | | S5 |  |  |  |  | Results Dissemination |   Word count: 249 |

|  |
| --- |
| **6. Alignment to AoFE’s Strategic Research Focus, Potential Value and Impact (up to 200 words)**  You need to illustrate how this project will position the AoFE’s research in the set strategic focus area. |
| The project aligns to the Academy’s strategic focal research area of managing and leading change towards future education and is part of the institutional five-star strategic blueprint which encompasses a broad spectrum of educational exploration and innovation, outlined in the XJTLU 5-Year Strategy 2022-26 (XJTLU, 2022).  First and foremost, with its unique and innovative features, the theory and practice as embodied by the 3.0 Model still awaits much exploration and revelation. What will be found through this research project, therefore, will help to demystify this innovative education model to all educational practitioners.  More than that, the dissemination of the research results will promote the XJTLU brand in the education field, at home and abroad. The exemplification of the 3.0 Model, as presented in this research, will inform the internal as well as external audiences of the social educational realities in XJTLU and enhance its profile accordingly.  In addition, it is hoped that the research findings will transform future educational practice. The 3.0 Model may not only expand the understanding of what can be carried out in the educational field at theoretical level, but also open up more possibilities for educational practice.  Word count: 191 |

|  |  |
| --- | --- |
| 7. Expected Research Outcomes and Milestones (up to 200 words)  Please list the expected research outcomes related to this project. If this project is funded by the AoFE, what external funding will you seek? | |
| It is expected that this research will generate a framework for the 3.0 Model, with the illustration of XJTLU pedagogical practices to demonstrate this model. The specifications of the 3.0 model will be shared through presentations at events and publications of reports/ papers.  Specifically, there will be events organized for the dissemination of the research outcomes. Three research seminars will be organized, at which the 3.0 Model will be discussed. One seminar is to be organized at the Academy level at the start of the project, during which ideas about this innovative model will be shared. The second seminar will be organized at the university level halfway through the project, during which the research team will communicate the findings with audiences across the university. The third seminar will be organized with external audiences, during which the research team will share the findings with colleagues in the educational field in China and overseas.  In addition, one publication will be made in the form of a research report to share with the community of educational practitioners, in the hope that the 3.0 Model will gain more recognition in the field and will showcase XJTLU’s standing at the frontier of this innovative practice.   |  |  |  |  | | --- | --- | --- | --- | | Expected Outcomes Summary | | | | |  | Total Number |  | Number | | Publication | 2 | Journal Paper |  | | Conference Paper | 1 | | Other (e.g. book, chapter, monograph) | 1  (A research report which includes theoretical framework, case studies, and operational proposals) | | [Intellectual](javascript:void(0);) [Property](javascript:void(0);) | N/A | Invention |  | | [Utility](javascript:void(0);) [Model](javascript:void(0);) |  | | Design Patent |  | | Software Copyright |  | | Others  (e.g. social Impact, industry impact, host events ) | Three research seminars:  1 at AoFE Academy level;  1 at XJTLU university level;  1 at international level (onsite/online).  Research findings and practice will be delivered at the annual XJTLU Education Transformation Conference in May 2024. | | | | What external funding will you attempt to seek? |  | | |   Word count (excluding word in table above): 200 | |
| 8. Previous Awarded in the recent 5 years (up to 200 words)  Please list previous projects where you have been a principal-applicant and the relevant outcomes obtained. If the research topic of this application is similar to that of a previous project, explain how they differ. |
| The PI received a significant provincial fund (RMB 50,000) from the Chinese Society For Technical and Vocational Education - New Vocational Education Institute of China in October 2022. To increase the impact of the research, the PI authored and publicly released a white paper on micro-credentials, which was distributed to over 200 onsite participants and 10,000 reviewers, serving as a valuable resource for scholars and practitioners.  Word count: 66 |

|  |
| --- |
| 9. Budget  Please summarise the anticipated costs in the table below and provide a justification for each specific budget sub-category. Please refer to Appendix B Guideline on the project budgeting. |

***Budget Items:*** *(Please add items to the following 8 categories.)*

|  |  |
| --- | --- |
| Categories | Amount (RMB) |
| A. Equipment | |
| A1. iFLYTEC (SR720 with automatic script translation and transcription functions) | 3,800 |
| A2. Portable USB drive (2T) | 700 |
| B. Consumables | |
| B1. Books | 2,000 |
| B2. Printing fees | 3,000 |
| C. Test/calculation/analysis | |
| C1. Data analysis fees（数据技术服务费） | 18,000 |
| C2. Online survery questionnaire service fees（问卷星企业版）400 yuan/ month X 5 months | 2,000 |
| D. Power consumption | |
| D1. |  |
| D2. |  |
| E. Travel | |
| E1. Interviews with external partners (transportation & refreshements/ light meals) | 7,500 |
| E2. |  |
| F. Reference/Information dissemination |  |
| F1. Research seminars X 3 | 9,000 |
| F2. |  |
| G. Labor cost |  |
| G1. Ph.D. students as research assistants X 2 | 36,000 |
| G2. Master students as administrative assistant X 1 | 15,000 |
| H. Miscellaneous |  |
| H1. Lunch meetings for research group discussions | 3,000 |
| H2. |  |
| **Total amount:** | **100,000** |

**Justification: Explain in detail why the items listed in the table above are needed and cannot be covered by other funding sources, may including but not limited to the justification of the equipment, the expense standard of the travel, the calculation basis of the labor cost, etc.** (Please refer to budget categories in the Table).

\*Because the PI has no other ongoing project with funding.

1. Equipment

A1.

A2.

1. Consumables

B1.

B2.

1. Test/calculation/analysis

C1. Professional data processing and graphs/ tables making for research purposes数据技术服务费：由专业数据服务公司提供数据分析报告，包含专业制图制表。

C2. （问卷星企业版）400 yuan/ month X 5 months

1. Power consumption

D1.

D2.

1. Travel

E1. 300 RMB per session, 3-4 participants per session, including researchers and interviewees, calculated at 25 sessions for six months

E2.

F. Reference/Information dissemination

F1.

F2.

G. Labor cost

G1. 50 hours of work per month (six months) for each individual, 60 RMB/hour for Ph.D. students

G2. 50 hours of work per month (six months) and 50 RMB/hour for Master students

H. Miscellaneous

H1. 50 RMB per person per meal, 8-10 people per session, one session per month

H2.

|  |  |
| --- | --- |
|  | |
| 10. References  References cited in the preceding sections should be listed in full here. | |
| [1] Tansley, A. G. (1939). British ecology during the past quarter-century: the plant community and the ecosystem. Journal of Ecology, 27(2), 513-530. <https://doi.org/10.2307/2256377>.  [2] Mars, M., Bronstein, J., & Lusch, R. (2012). The value of a metaphor: Organisations and ecosystems. Organizational Dynamics, 41(4), 271–280.  [3] Dowd, M. (2019). Ecosystem: Definition, types, structure & examples. Sciencing. https://sciencing.com/ecosystem-definition-types-structure-examples-13719218.html  [4] Niemi, H. (2021). Education Reforms for Equity and Quality: An Analysis from an Educational Ecosystem Perspective with Reference to Finnish Educational Transformations. Center for educational policy studies Journal, 11(2), 13-35. <https://doi.org/10.26529/cepsj.1100>.  [5] Walpole, S. C., Pearson, D., Coad, J., & Barna, S. (2016). What do tomorrow’s doctors need to learn about ecosystems?–A BEME Systematic Review: BEME Guide No. 36. Medical teacher, 38(4), 338-356.  [6] Cremin, L. A., & Greene, M. (1976). Public education. New York: Basic Books.  [7] Renya, J. (2011). Digital teaching and learning ecosystem (DTLE): A theoretical approach for online learning environments. Changing Demands, Changing Directions. Retrieved from <https://www.ascilite.org.au/conferences/hobart11/downloads/papers/Reyna-concise.pdf>  [8] Iansiti, M., & Levien, R. (2004). The Keystone Advantage: What the New Dynamics of Business Ecosystems Mean for Strategy, Innovation, and Sustainability. Boston: Harvard Business School Press.  [9] Zhang, J., Yu, B., & Lu, C. (2021). Exploring the Effects of Innovation Ecosystem Models on Innovative Performances of Start-Ups: The Contingent Role of Open Innovation. Entrepreneurship Research Journal, 13(4), 1139-1168. <https://doi.org/10.1515/erj-2020-0529>  [10] Valkokari, K.(2015). Business, Innovation, and Knowledge Ecosystems: How They Differ and How to Survive and Thrive within Them. Technol. Innovation Management Review, 5(8), 17–24. https://doi.org/10.22215/timreview919.  [11] Kumari, R., Kwon, K.-S., Lee, B.-H., & Choi, K. (2019). Co-Creation for Social Innovation in the Ecosystem Context: The Role of Higher Educational Institutions. Sustainability, 12(1), 307. <https://doi.org/10.3390/su12010307>  [12] Xi, Y., Zhang, X., & Ge, J. (2012). Replying to management challenges: integrating oriental and occidental wisdom by HeXie Management Theory. Chinese Management Studies, 6(3), 395-412. <https://doi.org/10.1108/17506141211259104>  [13] Nagore, M., & Bynon, R. (2018). How to Set Up a Process of Social Innovation; The Young Foundation: London, UK, 2018. Organisation for Economic Co-operation and Development (OECD). The future of education and skills: Education 2030. OECD Education Working Papers.  [14] Akiva. T. (2022). Using a Learning and Development Ecosystem Framework to Advance the Youth Fields. In: It Takes an Ecosystem: Understanding the People, Places, and Possibilities of Learning and Development Across Settings. Information Age Publishing.  [15] Blass, E., & Hayward, P. (2014). Innovation in higher education; will there be a role for “the academe/university” in 2025? Eur. J. Futures Res. 2(41). https://doi.org/10.1007/s40309-014-0041-x.  [16] Furst-Bowe, J. (2011). Systems thinking: Critical to quality improvement in higher education. Quality Approaches in Higher Education. 2(2), 2–5.  [17] XJTLU Strategy 2026. (2022). In Xi’an Jiaotong-Liverpool University. 3-4. <https://intranet.xjtlu.edu.cn/wui/index.html?#/main/portal/portal-38-21?_key=wvd4n6> | |
| 11. Ethical Requirements of Research Project Involving Humans  Researchers must abide by the highest standards of ethical conduct. Human research (herein defined as research involving human participants, human materials, human data or data arising from human activity) must be undertaken in a way that safeguards the dignity, rights, health, safety and privacy of those involved.  Studies requiring ethical review must not commence without ethical approval from the Research Ethics Subcommittee. Conducting research without ethical approval may constitute research misconduct.  It is the Principal Investigator’s responsibility to ensure that approval is obtained from the Research Ethics Subcommittee prior to the initiation of the project. The [flowchart](http://portal.xjtlu.edu.cn/sites/DocCAAFolder/Shared%20Documents/02.%20Academic%20Policies%20and%20Procedures%202016-17/VII.%20POLICIES%20and%20PROCEDURES%20-%20STAFF/VII.16.App%201%20Flowchart%20of%20Research%20Ethics%20Application%20Process.pdf) (click to open) will assist Principal Investigators in assessing research risk. Appropriate forms are found on Portal via this [link](http://portal.xjtlu.edu.cn/sites/DocCAAFolder/Shared%20Documents/02.%20Academic%20Policies%20and%20Procedures%202016-17/VII.%20POLICIES%20and%20PROCEDURES%20-%20STAFF/VII.16.App%204%20Ethical%20Research%20Approval%20Application%20Forms_STAFF.docx?Web=1).  All documents can be found [here](http://portal.xjtlu.edu.cn/sites/DocCAAFolder/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2FDocCAAFolder%2FShared%20Documents%2F02%2E%20Academic%20Policies%20and%20Procedures%202016%2D17%2FVII%2E%20POLICIES%20and%20PROCEDURES%20%2D%20STAFF&FolderCTID=0x012000E27BA2AD3FC21D4D976768D0BC271403&View=%7BF334A7ED%2D259B%2D4335%2D90F5%2DE6CB3231C638%7D&InitialTabId=Ribbon%2ERead&VisibilityContext=WSSTabPersistence#InplviewHashf334a7ed-259b-4335-90f5-e6cb3231c638=Paged%3DTRUE-p_SortBehavior%3D0-p_FileLeafRef%3DVII%252e14%2520Staff%2520Tuition%2520Fee%2520Remission%2520Policy%252epdf-p_ID%3D11747-RootFolder%3D%252fsites%252fDocCAAFolder%252fShared%2520Documents%252f0) under VII.16. (In case the link field code changes, please find access to the folder here: Centre Folder CAA/[Academic Policies and Procedures](http://portal.xjtlu.edu.cn/sites/DocCAAFolder/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2FDocCAAFolder%2FShared%20Documents%2F02%2E%20Academic%20Policies%20and%20Procedures%202016%2D17&FolderCTID=0x01200019E1AC8009C41045A56FEBD01958BD4100EF08AC48AF9E52489C491663D9AC8080&View=%7BF334A7ED%2D259B%2D4335%2D90F5%2DE6CB3231C638%7D)/[POLICIES and PROCEDURES - STAFF](http://portal.xjtlu.edu.cn/sites/DocCAAFolder/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fsites%2FDocCAAFolder%2FShared%20Documents%2F02%2E%20Academic%20Policies%20and%20Procedures%202016%2D17%2FVII%2E%20POLICIES%20and%20PROCEDURES%20%2D%20STAFF&FolderCTID=0x012000E27BA2AD3FC21D4D976768D0BC271403&View=%7BF334A7ED%2D259B%2D4335%2D90F5%2DE6CB3231C638%7D) |
| 10.1. Will the proposed research involve human subjects, including data derived from human subjects?  **NO**  *☑* YES - please provide a brief description of the ethical implications and the measures that will be taken to ensure that adequate protections are in place.  *Ethcial approval will be obtained prior to data-collection.*  IMPLICATIONS: Since this project will collect information from the students, it is important to protect the students’ personal information, their learning experiences, and their academic performance. The research team will not be allowed to disseminate participants’ information in or outside of XJTLU.  PROTECTIONS:  It is essential to protect the participants’ information before, during, and after this project. Before data collection, interviews, and survey, the participants will be given a detailed description about this project. The participants will also be given a consent form; they will have enough time to read and sign the form. Their information will be securely protected. During the data collection, interviews, and survey, participants have the right to stop at any time without giving any explanation. After the data collection, interview, and survey, all data will be securely kept. |