

# BRIDGING BUSINESS-EDUCATION GAPS: INSTRUCTIONAL DESIGN OF ENTREPRENEUR COURSE AND ITS MICRO-CREDENTIAL CERTIFICATION FRAMEWORK FOR SELF-EMPLOYED JUNIOR BUSINESS FACILITATOR OUTCOME

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## **Keywords**

*Instructional Design, Micro-Credential Certification Framework, Junior business Facilitator, Entrepreneurship Courses*

## **ABSTRACT**

Micro-Credential Certification Schemes are increasingly essential in business management education for several reasons, including flexibility, relevance to industry trends, recognition of skills, modular learning, and career development. The research aims to develop a comprehensive micro-credential certification framework that aligns with national standards, business technical standards, and regulations, addressing the need for industry-recognized certifications. Furthermore, the research focuses on developing a Semester Learning Plan (SLP) based on the Integrated Certification Scheme and the instructional design, ensuring a cohesive and comprehensive approach to learning and certification. The R&D method is selected to systematically develop and refine an instructional design that harmonizes with this certification system. The data analysis will involve qualitative analysis using thematic analysis to identify key themes and patterns from interviews, observations, and document reviews, which will help assess the strengths and weaknesses of the educational program and the certification scheme. The formative evaluation results of students participating in the entrepreneurship program totaling 74 students will be used to evaluate the perceived value of the certification framework. The integration of the micro credential certification with instructional design has also proven effective in enhancing graduates' competitiveness in the job market, supporting career development through modular learning that is aligned with industry trends.

## **INTRODUCTION**

Instructional design is a fundamental aspect of education, involving the systematic creation of instructional plans based on learning theories to enhance the quality of education. As identified by Dick et al. (2015), instructional design encompasses the planning, development, and evaluation of educational programs, ensuring that content is both relevant and engaging for learners. Radović et al., (2021) emphasize that without strong instructional design, educational programs risk failing to provide students with the practical skills and knowledge necessary for success in real-world business environments. Sabri & Rahim (2020) also underscore that employing a well-structured instructional design model can significantly improve the quality of education, equipping students with the competencies they need in their respective fields. Finally, Basu (2018) asserts that such an approach makes it more likely that students will achieve their desired learning outcomes, thus enhancing the overall effectiveness of educational programs.

Micro-Credential Certification Schemes are increasingly essential in business management education for several reasons, including flexibility, relevance to industry trends, recognition of skills, modular learning, and career development. According to the Commonwealth of Learning, (2019), micro-credentials offer flexibility by allowing learners to engage in short, verified courses that align with current industry needs. MQA (2020) further highlights that these schemes provide recognition of skills and competencies that are both industry-driven and responsive to market demands. In addition, ETF, (2022) emphasizes how micro-credentials facilitate modular learning, enabling learners to stack smaller learning units into larger qualifications. Gillian Golden et al. (2021) also stresses that micro-credentials ensure learners stay updated with the latest trends in business management, equipping them with relevant skills. Furthermore, Kato highlights the role of micro-credentials in offering accelerated career development pathways through targeted learning outcomes. Finally, OECD (2021) points out that micro-credentials support career development by offering flexible, targeted learning experiences that help learners remain competitive in the evolving job market.

Entrepreneurship courses play a crucial role in fostering innovation, economic development, and job creation by equipping students with the essential knowledge, skills, and mindset needed to start and manage successful businesses. These courses promote critical thinking, problem-solving, and resilience, which are key traits for entrepreneurs. Liu et al. (2022) demonstrate that entrepreneurship education significantly influences the development of entrepreneurial intentions by cultivating skills such as self-efficacy, problem-solving, and resilience. Similarly, Sagar (2024) underscores the dynamic role of entrepreneurship as a driver of innovation and economic growth. Mago & van der Merwe, (2023) and Sandra Sayonara Solórzano (2024) further highlight the importance of entrepreneurship education in fostering the skills and mindset necessary for business creation and management, allowing students to innovate and establish new ventures. Additionally, Doran et al., (2018) emphasizes the critical role of entrepreneurship in stimulating economic growth by driving job creation, innovation, and economic dynamism.

Self-employed Junior Business Facilitator as an outcome of the Entrepreneurship course is very important for the following reasons: Practical Skills Development; providing Independence and Innovation; Increasing employability; Personal Branding Opportunities; and Meet the Needs of the Industry. Liu et al., (2022) points out that entrepreneurship courses help students build personal brands by showcasing their unique skills and competencies. Wardana et al., (2020) emphasizes that entrepreneurship education equips students with practical skills such as business feasibility analysis, business plan creation, and commercialization of ideas. Efe-Imafidon et al., (2017) discusses how entrepreneurial courses are essential for fostering independence and innovation. Seyi David (2023) emphasizes the importance of developing practical skills that empower graduates to become self-reliant entrepreneurs.

The Self-employed Junior Business Facilitator as an outcome of an entrepreneurship course is critical for several reasons, including practical skills development, fostering independence and innovation, enhancing employability, creating personal branding opportunities, and meeting industry needs. Liu et al., (2022) highlights how entrepreneurship courses help students develop their personal brands by showcasing their unique skills and competencies. Ludi Wishnu Wardana (2020) emphasizes that these courses equip students with essential practical skills such as business feasibility analysis, business plan creation, and the commercialization of ideas. Efe-Imafidon et al., (2017) discusses the importance of entrepreneurial education in fostering independence and innovation, enabling graduates to take initiative in business creation. Furthermore, David & Ore, (2023) underscores the significance of developing practical skills that empower graduates to become self-reliant entrepreneurs, increasing their employability and ability to meet the evolving needs of the industry. However, There is a significant gap between the skills provided by education and the needs of the business sector, leading to graduates who are underprepared for the workforce. This misalignment results in high unemployment rates among education graduates and dissatisfaction among employers.

Entrepreneurship courses often struggle to maintain practical relevance, frequently failing to address real-world challenges. A one-size-fits-all approach overlooks the diverse needs of students, while traditional assessments do not effectively measure essential entrepreneurial skills. Aadland, (2023) stresses the importance of customized learning experiences that cater to individual student needs and meet specific industry demands. Similarly, Al-Fattal, (2024) points out that many entrepreneurship programs focus too heavily on theoretical knowledge, neglecting the practical challenges entrepreneurs face in the real business world. Ricciardi et al., (2021) echoes this sentiment,

noting that traditional entrepreneurship courses often fail to integrate real-world business scenarios, resulting in a lack of practical relevance.

Certification programs are often misaligned with industry needs, lack standardization, and remain inaccessible due to high costs and time constraints, diminishing their overall effectiveness and value. Midhat Ali et al., (2021) notes that many certification and competency frameworks are developed using inconsistent methodologies, leading to a lack of uniformity, making it difficult for employers to assess the value of different certifications. Additionally, Rossi et al., (2024) points out that high costs and time demands make these programs inaccessible to a broader group of learners, further reducing their effectiveness. Giovanelli et al., (2024) emphasizes that certification programs frequently fail to align with industry requirements, as many do not adequately address the evolving competencies needed in today's dynamic business environment.

Many entrepreneurship courses exhibit a theory-practice gap, often featuring outdated content and lacking critical support systems like mentorship, which hinders the application of knowledge in real-world scenarios. America & Neethling, (2023) emphasizes the importance of collaborative mentorship to bridge this gap, noting that many programs fail to provide the necessary mentorship structures to support students in applying theoretical knowledge to practical challenges. Similarly, Thomas, (2023) points out that many entrepreneurship courses continue to focus heavily on theoretical knowledge, leading to a disconnect between what students learn and the real-world challenges they will face as entrepreneurs.

The research aims to develop a micro-credential certification framework that aligns with national standards, business technical standards, and regulations. It also seeks to create an instructional design that is harmonized with the industry-recognized micro-credential certification framework. Furthermore, the research focuses on developing a Semester Learning Plan (SLP) based on the Integrated Certification Scheme and the instructional design, ensuring a cohesive and comprehensive approach to learning and certification. The research contribution lies in the development of a comprehensive micro-credential certification framework that integrates national standards, business technical standards, and regulations, addressing the need for industry-recognized certifications. Additionally, the research contributes to the design of an instructional framework aligned with this certification system, ensuring that learning outcomes meet both educational and industry requirements. By developing a Semester Learning Plan (SLP) based on the Integrated Certification Scheme, the study offers a structured approach to curriculum development that supports a seamless connection between education, certification, and industry needs, thus enhancing workforce readiness and employability.

## **METHODS**

This study adopts a Research and Development (R&D) approach using the Dick and Carey model within the framework of Gall and Borg. The R&D method is selected to systematically develop and refine an instructional design that harmonizes with micro-credential certification framework, ensuring that the resulting educational program is both effective and relevant to industry needs. The Dick and Carey model is a comprehensive framework for designing, developing, and evaluating instructional materials, identified as a research and development model (Dick et al., 2015). It involves a series of interconnected stages and micro-credential certification framework.

Data collection will involve conducting in-depth interviews with industry experts, educators, and certification bodies to gain insights on effective instructional design and certification schemes. Surveys will be distributed to students and graduates to assess their business readiness and the perceived value of certification. Observations will take place in classrooms to gather qualitative data on the instructional design's effectiveness. Additionally, document analysis will review instructional materials, certification standards, and industry requirements to ensure alignment and relevance to the business environment.

The data analysis will involve qualitative analysis using thematic analysis to identify key themes and patterns from interviews, observations, and document reviews, which will help assess the strengths and weaknesses of the instructional design and micro-credential certification framework. Additionally, quantitative analysis will be performed using descriptive statistics to evaluate the impact of the instructional design on student readiness and the perceived value of the micro-credential certification framework. Inferential statistics will be applied to determine significant differences and correlations within the data.

**RESULTS**

**Development of micro-credential certification framework**

Due to the unavailability of a certification scheme for Entrepreneurship learning outcomes, a certification scheme for micro-credentialing purposes was developed. The first stage that is passed is Identification Needs Analysis Using Front-End Analysis by identification and developing certification scheme based on SKKNI 333/2022: The process of identifying needs analysis using front-end analysis involves systematically gathering and analyzing data to determine the requirements and gaps in the current educational and certification framework. This is particularly focused on aligning with the Indonesian National Work Competency Standards (SKKNI) 333/2022, which provides a structured approach to developing relevant and effective certification scheme. This process has resulted in a comprehensive Junior Business Facilitator Occupational certification scheme, as described below.

**Table 1.** Junior Business Facilitator Micro-Credential Certification Framework

<b>Certification Title</b>	<b>Scheme</b>	Occupation: JUNIOR BUSINESS FACILITATOR
<b>Background to the need for certification schemes</b>		<ul style="list-style-type: none"> <li>• Industrial or Professional Needs</li> <li>• Skill Recognition and Validation</li> <li>• Career Development and Education</li> </ul>
<b>Definition/Scope of learning</b>		A Junior Business Facilitator is an entry-level professional who assists in guiding and supporting small businesses or startups through the various stages of development. Junior Business Facilitators work under the supervision of more experienced business facilitators or advisors.
<b>Scope</b>		The context of the <i>Junior Business Facilitator's</i> workplace includes: <ul style="list-style-type: none"> <li>• Business Incubators and Accelerators</li> <li>• Non-profit Organizations</li> <li>• Consulting Firm</li> </ul>
<b>Purpose</b>		<ul style="list-style-type: none"> <li>• Fulfillment of industrial system requirements.</li> <li>• Fulfillment of professional requirements.</li> <li>• Personal branding.</li> </ul>
<b>Normative Reference</b>		<ul style="list-style-type: none"> <li>• Regulations:                             <ul style="list-style-type: none"> <li>○ Ministry Decree 2/2016-National Competency Standardization System.</li> <li>○ Guideline of BNSP 210</li> </ul> </li> <li>• Specific standard: STD-ASAINDO-KWU1-2023</li> </ul>
<b>Competency package/packageing</b>		Core Competency: <ul style="list-style-type: none"> <li>• Opportunity identification and development of business ideas.</li> <li>• Business Concept Development</li> <li>• Business Feasibility Analysis</li> <li>• Business Model Development</li> <li>• Industry and competitor analysis</li> <li>• Business plan development</li> </ul> Electives: <ul style="list-style-type: none"> <li>• N/A</li> </ul>
<b>Basic requirements</b>		<ul style="list-style-type: none"> <li>• Qualification/education level: level 4 or equivalent</li> <li>• Employability skills: Communication, Teamwork, problem solving, planning and organising, self-management, initiative and entrepreneurship, technology, and Learning.</li> </ul>

**Discussion**

The Junior Business Facilitator certification framework is designed to equip entry-level professionals with the essential skills and competencies to effectively support small businesses and startups. This certification not only validates the skills of Junior Business Facilitators but also significantly contributes to their career development and professional growth. Pepple & Enuoh, (2020) highlights the importance of entrepreneurial competencies such as opportunity recognition, strategic thinking, and management skills, which are vital for driving business performance and growth.



Instructional Goals - Subordinate	Participants are able to <b>identify opportunities and develop business ideas</b> according to the business context in 3 times the experience	Participants are able to <b>develop business concepts</b> according to the business context in 3 times the experience	Participants are able to <b>conduct business feasibility analysis</b> according to the business context in 3 times experience	Participants are able to <b>develop business models</b> according to the business context in 3 times the experience	Participants are able to <b>analyze industries and competitors</b> according to the business context in 3 times experience	Participants are able to <b>develop a business plan</b> according to the business context in 3 times the experience
	↑	↑	↑	↑	↑	↑
	2: Participants are able to find gaps in the market and build ideas	5: Participants are able to develop a management team	5: Participants are able to draw analytical conclusions	9: Participants are able to establish a fee structure	2: Participants are able to analyze competitors	7: Participants Able to Perform SWOT Analysis
	1: Participants are able to identify and recognize opportunities	4: Participants are able to develop special features	4: Participants are able to analyze financial feasibility	8: Participants are able to identify key partners	1: Participants are able to analyze the industry	6: Participants are able to conduct financial analysis
		3: Participants are able to identify the reasons for developing the product	3: Participants are able to analyze organizational feasibility	7: Participants are able to identify key activities		5: Participants are able to analyze market opportunities & competitors
		2: Participants are able to identify the target market	2: Participants are able to analyze the feasibility of the target market/industry	6: Participants are able to identify key resources		4: Participants are able to conduct operational analysis
Learning Objectives		1: Participants are able to determine the product that will be made their business concept	1: Participants are able to analyze the feasibility of products/services	5: Participants are able to identify income streams		3: Participants are able to conduct marketing analysis
				4: Participants are able to identify the type of relationship with the customer		2: Participants are able to compile business descriptions
				3: Participants are able to identify the type of communication and distribution		1: Participants are able to identify the principles & stakeholders of the business plan
				2: Participants are able to identify the value/solution offered		
				1: Participants are able to		

	identify customer segments
Entry Behaviour Line	Students who have attended semester 3 in the field of business management.

**Development of assessment instruments**

To create assessment tools that align with performance objectives, first, define clear performance objectives that specify the desired learner behavior, the conditions under which the behavior should occur, and the criteria for acceptable performance. Match the assessment types to the objectives: use multiple-choice, true/false, or short answer tests for knowledge objectives to assess recall and understanding; performance tasks, practical workbook evaluation, or simulations for skill objectives to assess the application of skills; reflections, or peer evaluations for attitude objectives to assess attitudes and values. Ensure content validity by making sure the assessment covers all aspects of the performance objectives and reflects their importance. Develop clear rubrics and scoring guides that describe different levels of performance for each criterion to ensure consistency and objectivity in scoring. Align the instructions and conditions for the assessment with those specified in the performance objectives, and review the assessments for fairness and accessibility, ensuring they are unbiased and accessible to all learners, considering diverse backgrounds and abilities.

However, we can develop assessment instruments by using competency units as assessment instruments. ILO 2016 provides guidelines that Competency Standards are developed primarily as assessment instruments. Then we can get valid assessment instruments directly from the packaging of the competency units of the certification scheme. Assessment instruments to achieve the above learning objectives can be identified as follows:

**Tabel 3.** Assessment instruments for Junior Business Facilitator

Unit code	Units of competency
ASAINDO-STD-KWU-001	Opportunity identification and development of business ideas.
ASAINDO-STD-KWU-002	Business Concept Development
ASAINDO-STD-KWU-003	Business Feasibility Analysis
ASAINDO-STD-KWU-004	Business Model Development
ASAINDO-STD-KWU-005	Industry and competitor analysis
ASAINDO-STD-KWU-006	Business plan development
ASAINDO-STD-KWU-007	Business proposal development

**Development of learning strategies**

To develop an instructional strategy, first identify the sequence of instructional activities to ensure a logical progression of learning. Next, outline the instructional content to provide a clear framework for what will be taught. Identify the instructional methods, such as lectures, discussions, or hands-on activities, to determine how the content will be delivered. Determine the media and instructional tools, such as textbooks, digital resources, or practical equipment, to support the learning process. Identify the instructional time allocation to ensure that each activity is given adequate time for effective learning. Finally, compile these elements into a cohesive instructional strategy that aligns with the learning objectives and meets the needs of the learners. The results of the Junior Business facilitator's instructional strategy development are presented below.

**Table 4.** Instructional Strategy subject matter Entrepreneurship.

TYPES OF STRATEGIES	CHOSEN STRATEGY	TRACEABILITY
1. Instructional activity sequence strategies	Instructional activity sequence strategy: <ul style="list-style-type: none"> <li>• Task skills</li> <li>• Task management skills</li> <li>• Contingency management skills</li> <li>• Job/environment skills</li> <li>• Transfer skills</li> </ul>	Certification Scheme: <ul style="list-style-type: none"> <li>• Assessment methods</li> <li>• Assessment guidelines from competency units.</li> </ul>

2. <b>Instructional content outline strategy</b>	Instructional content outline strategy: <ul style="list-style-type: none"> <li>• Introduction: 5W1H, basic concepts/principles/theories/philosophies</li> <li>• Learning experience: Steps, work instructions, range of variables.</li> <li>• Competency dimension</li> <li>• Self-assessment</li> </ul>	Certification scheme: <ul style="list-style-type: none"> <li>• Description of competence: element of competence</li> <li>• Judging guide</li> <li>• Assessment method.</li> </ul>
3. <b>Instructional method strategies</b>	Instructional method strategy: <ul style="list-style-type: none"> <li>• lecture-based instruction,</li> <li>• individual learning,</li> </ul>	Certification scheme: <ul style="list-style-type: none"> <li>• Competence</li> <li>• Knowledge and attitude</li> <li>• Critical aspects</li> </ul>
4. <b>Media strategy and instructional tools</b>	Media strategies and instructional tools: <ul style="list-style-type: none"> <li>• Adaptive production technique</li> <li>• Creative invention</li> </ul>	Certification scheme: <ul style="list-style-type: none"> <li>• Assessment guide</li> </ul>
5. <b>Instructional learning time strategies</b>	Instructional study time strategies <ul style="list-style-type: none"> <li>• Use technology effectively to save time.</li> </ul>	Certification scheme: <ul style="list-style-type: none"> <li>• Assessment guide</li> </ul>
6. <b>Instructional Strategy Establishment</b>	Instructional strategies: <ul style="list-style-type: none"> <li>• Direct Instruction,</li> <li>• Interactive Instruction,</li> <li>• Experiential Learning, and</li> <li>• Independent Study</li> </ul>	Certification scheme: <ul style="list-style-type: none"> <li>• Assessment guide</li> </ul>

The development of the instructional strategy for Junior Business Facilitators incorporates a structured approach to ensure comprehensive learning and assessment. The sequence of instructional activities includes task skills, management skills, contingency management, job/environment skills, and transfer skills, all aligned with certification assessment methods. The instructional content outline covers fundamental concepts, learning experiences, competency dimensions, and self-assessment, supporting a robust competency framework. Instructional methods focus on lecture-based and individual learning, emphasizing competence, knowledge, and attitude. Media and tools strategies utilize adaptive production techniques and creative invention, ensuring practical assessment guides. Instructional time strategies highlight the effective use of technology to enhance efficiency. The overall instructional strategy combines direct instruction, interactive instruction, experiential learning, and independent study, creating a balanced and effective learning environment that aligns with the certification requirements and ensures the development of well-rounded Junior Business Facilitators.

***Development of competency-based learning materials***

The development of instructional materials for entrepreneurship with the learning outcome of preparing Junior Business Facilitators involves a multifaceted approach to ensure comprehensive and effective learning. This process includes identifying various instructional activity formats such as independent, face-to-face, and blended instructional systems. A credible development team creates instructional materials tailored to these formats, ensuring flexibility and accessibility for diverse learning needs. Learner guides are developed to communicate scientific, technical, and practical information clearly, aiding learners in using various tools and technologies effectively. Teaching guidelines are explicitly designed to communicate conceptual objectives with direct links to proposed activities, providing knowledge and support for understanding and implementing instructional plans. These guidelines reinforce pedagogical content knowledge, offer relevant pedagogical practices, present alternatives and choices, and engage educators in continuous reflection. This holistic approach ensures that the instructional materials not only impart essential entrepreneurial skills but also align with the competencies required for the Junior Business Facilitator role, fostering both theoretical understanding and practical application.

Based on the identification and development steps, instructional materials have been developed in the form of:

- Teaching modules for each unit of competency
- Video for every unit competency.
- Material for recording entrepreneurial practices according to the unit of competence.
- Workbook as quality evidence for one junior business facilitator package.

**Formative Evaluation**

The formative evaluation process for the instructional design of the Junior Business Facilitator course is aimed at improving the instructional materials and strategies through iterative feedback and refinement. The concept of formative evaluation is centered on evaluating for learning, rather than grading, and is conducted informally to assess and enhance the instructional design. The stages of formative evaluation include preparing the evaluation, explaining the instruments used, and conducting the evaluation. The evaluation design involves one-to-one evaluations with experts, small-group evaluations with learners or practitioners, and field tests in actual classroom settings. Instruments such as survey forms and interview guides are constructed to gather comprehensive feedback. The evaluation assesses the effectiveness of teaching materials, instructional strategies, learner responses and interactions, and the achievement of learning objectives. Data from the evaluation, including discrepancy reports and acceptance data, are analyzed to identify areas for improvement. Based on the results, instructional products are revised through verification and validation, ensuring that the final materials are effective, relevant, and aligned with the desired learning outcomes. This thorough and systematic approach ensures that the instructional design is continuously improved to meet the needs of learners and achieve the program's educational goals. Design validation was carried out through a workshop on the integration of certification schemes in instructional design as many as 24 participants. Weaknesses and design flaws were corrected and verified.

**Table 6.** Formative evaluation results of students participating in the entrepreneurship program totaling 74 students

Types of evaluations	Achievement with an A grade (% of students)	As quality evidence with 3 times experience with A grades (credential can be given)
Practice of units of competence	68	V
UTS with essay and practice units of competency	78	V
UAS with essay and practice units of competence	87	V

**Discussion**

The research on the development of instructional design for the Junior Business Facilitator certification framework presents a approach to creating an effective learning framework. This approach includes several key components:

- **Learning Outcomes:** The instructional goals, guided by the ABCD model, are designed to equip participants with the skills to become Junior Business Developers in the tourism industry. The specific objectives, drawn from the certification scheme, emphasize competencies such as opportunity identification, business idea development, and feasibility analysis. (Dalgıç et al., (2024) supports these goals by demonstrating how technology enhances skill development in areas like opportunity identification and business idea creation. Gingoyon, (2023) reinforces the use of the ABCD model in blended learning, noting its positive effects on student satisfaction, engagement, and performance. Mae et al., (2022) highlights the importance of applying management techniques to innovate and create business opportunities within the tourism industry, while Mae Dimayuga Borbon et al., (2021) further emphasizes outcomes that focus on identifying opportunities, developing business ideas, and analyzing feasibility—all crucial components in the tourism sector.
- **Assessment Instruments:** The tools, including multiple-choice tests, practical exams, and self-assessments, align with performance objectives. These instruments ensure comprehensive evaluation across knowledge, skills, and attitudes. Alastalo et al., (2023) emphasizes the use of both subjective and objective assessments like self-assessments and knowledge tests, which together provide a complete evaluation of skills. Halliday et al., (2024) emphasizes authentic assessment,

which evaluates students' ability to apply their knowledge in real-world settings. Vercellotti, (2021) discusses the importance of designing assessment tools such as checklists, detailed grading lists, and rubrics that align with specific learning objectives.

- **Learning Strategies:** The instructional strategy includes a blend of direct instruction, interactive learning, experiential learning, and independent study, all structured to meet certification requirements. Biwer et al., (2020) highlights that effective learning strategies, such as practice testing, significantly improve knowledge retention and align well with the demands of certification programs. Francisco & Celon, (2020) emphasizes the importance of incorporating both subjective and objective assessments to evaluate not only theoretical knowledge but also practical skills, ensuring a comprehensive learning experience. Özdoğru, (2022) points out that learner-centered instructional strategies foster conceptual understanding, motivation to learn, and the ability to develop self-directed learning skills, all of which are critical for meeting certification standards and ensuring learner success.
- **Competency-Based Learning Materials:** The use of learning materials such as teaching modules, videos, and workbooks is designed for flexibility and accessibility across independent, face-to-face, and blended learning formats. Buhl-Wiggers et al., (2023) discusses the adaptability of these materials to various learning environments, particularly in blended learning, which effectively combines face-to-face instruction with independent study. Similarly, Albeta et al., (2023) highlights how blended learning models promote flexibility by incorporating technology-based learning materials like videos and workbooks, enabling students to prepare for classes and complete assignments independently. Singh et al., (2021) emphasizes the importance of materials designed for hybrid and blended learning, noting that videos, interactive modules, and workbooks are critical for supporting both independent learning and in-class activities. A. Singh, (2021) also points out that this flexibility enhances student engagement in various formats, improving learning retention and overall outcomes.
- **Formative Evaluation:** A comprehensive formative evaluation process involves expert reviews, small-group testing, and field tests to continuously refine and validate instructional materials and strategies. Feedback is collected through surveys and interviews to ensure ongoing improvements. Forsell et al., (2020) emphasizes that formative assessments are essential for supporting the learning process, as they involve collecting evidence, providing feedback, and making instructional adjustments, closely aligning with the feedback mechanism described here. Similarly, Made et al., (2022) highlights that formative evaluation methods commonly include expert reviews, small-group testing, and field tests, which help in the continuous validation of materials. Phillips et al., (2018) also stresses the role of formative evaluations in improving and validating digital learning materials through a combination of expert reviews and field tests. Additionally, Ikart, (2019) underscores the importance of expert reviews in formative evaluations, particularly for identifying potential issues in survey design and improving questionnaire quality.

The development of the Junior Business Facilitator certification framework and its instructional design is methodically planned and executed to ensure that the learning outcomes are met, and the certification is credible and effective. This approach ensures that participants are well-prepared to meet industry standards and professional requirements.

### **Development of Semester Learning Plan (SLP) based on Integrated Certification Scheme and Instructional Design**

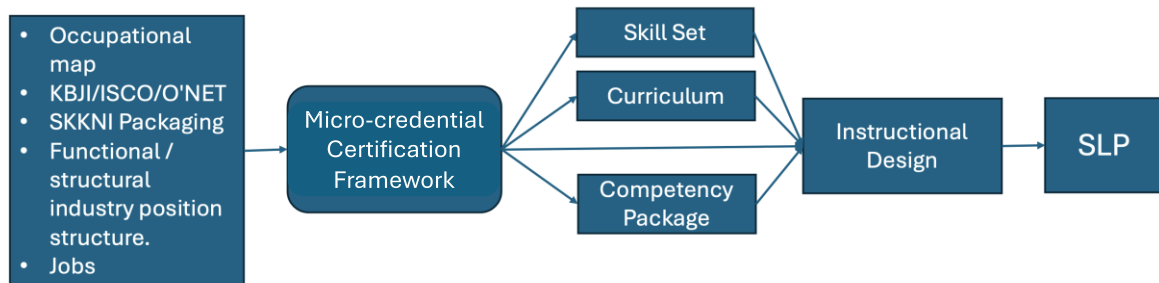
The research aimed to develop a Semester Learning Plan (RPS) that integrates certification schemes and instructional design to prepare students as Junior Business Facilitators. This plan is meticulously designed to ensure that each competency required by the industry is achieved through a structured and continuous series of learning activities. Key Components of the Semester Learning Plan are identified in this development.

- **The instructional goals** are designed to prepare students to become competent Junior Business Developers within the tourism business context. These objectives encompass identifying business opportunities, developing business concepts, conducting feasibility analyses, and planning businesses across various contexts, ensuring comprehensive entrepreneurial readiness.
- **Study Material and Learning Activities:** The study materials cover theories, principles, concepts, and step-by-step work instructions relevant to developing entrepreneurial skills.

Learning activities include lectures, discussions, hands-on practices, and demonstrations, ensuring students grasp both theoretical knowledge and practical application.

- **Assessment Criteria:** Detailed assessment criteria and passing indicators are established for each competency unit, such as identifying business opportunities and developing business ideas, to ensure students meet the set standards in the certification scheme.
- **Integration with Certification Scheme:** The RPS is aligned with the Junior Business Facilitator certification framework, including necessary competency units. This ensures students gain both theoretical knowledge and practical skills validated through certification.
- **Formative and Summative Evaluations:** Formative evaluations are conducted continuously to provide feedback and improvements. Summative evaluations, such as mid-term exams (UTS) and final exams (UAS), assess overall competency and readiness of students for professional roles.

The development of this Semester Learning Plan demonstrates a structured and integrated approach to teaching entrepreneurship, aligning educational activities with certification standards. This integration ensures students are not only academically prepared but also professionally validated through a recognized certification scheme. This alignment enhances the employability and career readiness of graduates in the entrepreneurial sector as figured .



**Figure 1.** Development of Semester Learning Plan (SLP) based on Integrated Certification Scheme and Instructional Design

**Table 7.** Semester Learning Plan (SL) based on Integrated Micro-credential Certification Framework and Instructional Design. \*) \*\*)

Week	Expected final Competence (ABCD=Audience Behavior Condition Degree)	Study Material (Learning Materials)	Forms of Learning	Student Learning Experience	Assessment Criteria and Passing Indicators	
					Judging Criteria	Indicators
1.	Participants are able to internalize instructional/learning objectives - employability skills - competency dimensions	<ul style="list-style-type: none"> <li>• Internalization of learning outcomes</li> <li>• The Importance of Entrepreneurship Theory/Principles/concepts</li> <li>• Decide to become an entrepreneur</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing and articulation into an entrepreneur.</li> <li>• Discussion</li> <li>• Practice / demonstrate</li> </ul>	decided to become an entrepreneur	Junior Business Facilitator certification framework	Student commitment/ Learning contract
2.	Participants are able to Identify Opportunities and develop business ideas according to the context of 3 times experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimension of competence development opportunities and business ideas.</li> <li>• Steps and work instructions Identify Opportunities and develop business ideas</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice / demonstrate</li> </ul>	Identify Opportunities and develop business ideas in the context of one time experience	PC on competency units Identify Opportunities and develop business ideas	Record Opportunity Identification and develop business ideas
3.	Sda	Practice Identifying Opportunities and developing business ideas according to business area	<ul style="list-style-type: none"> <li>• Practice / demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>			
4.	Participants are able to develop business concepts according to the context of 3 times experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimensions of competence Develop business concepts.</li> <li>• Steps and work instructions Develop a business concept</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice / demonstrate</li> </ul>	Develop business concepts in the context of one time experience	PC on competency units Develop business concepts	PC on competency units Develop business concepts

5.	Sda	Practice of Identifying Opportunities and Developing business concepts according to business ideas	<ul style="list-style-type: none"> <li>• demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>	/			
6.	Participants are able to analyze business feasibility according to the context of 3 times experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimensions of competence Business feasibility analysis.</li> <li>• Steps and work instructions Business feasibility analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice</li> <li>• demonstrate</li> </ul>	/	Business feasibility analysis according to the context of 1 experience	PC in Business feasibility analysis	Records of business feasibility analysis
7.	Sda	Practice of business feasibility analysis according to business ideas	<ul style="list-style-type: none"> <li>• demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>	/			
8.	UTS - can produce evidence of competency as second evidence				Experience undertaking 3 units of competency in a simulated context		
9.	Participants are able to develop business models according to the context of 3 times experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimensions of competence Develop business models.</li> <li>• Steps and work instructions Develop a business model</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice</li> <li>• demonstrate</li> </ul>	/	Develop a business model in context one time experience	PC on Business units Develop a business model	Records Developing a business model
10.	Sda	Practice Develop a business model according to a business idea	<ul style="list-style-type: none"> <li>• demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>	/			
11.	Participants are able to analyze industries and competitors according to the context of 3 times experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimensions of competence Analysis of industry and competitors.</li> <li>• Steps and work instructions Industry and competitor analysis</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice</li> <li>• demonstrate</li> </ul>	/	Industry and competitor analysis in context one time experience	PC in Industry and competitor analysis	Industry and competitor analysis records
12.	Sda	Practice Analysis of industry and competitors according to business ideas	<ul style="list-style-type: none"> <li>• demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>	/			
13.	Participants are able to make business plans according to the context of 3 times the experience	<ul style="list-style-type: none"> <li>• Theory / Principles / concepts, employability, dimensions of competence Make a business plan.</li> <li>• Steps and work instructions Creating a business plan</li> </ul>	<ul style="list-style-type: none"> <li>• Lecturing</li> <li>• Discussion</li> <li>• Practice</li> <li>• demonstrate</li> </ul>	/	Create a business plan in context one time experience	YOKE on competency units Creating a business plan	Recordings Create a business plan
14.	Sda	Practice Making a business plan according to a business idea	<ul style="list-style-type: none"> <li>• demonstrate</li> <li>• Discussion</li> <li>• Self-assessment</li> </ul>	/			
15.	Review and self declaration as Junior Business Facilitator	Declaration of profession and starting a business	<ul style="list-style-type: none"> <li>• Discussion</li> <li>• demostrnation</li> </ul>		Build a Junior Business Facilitator Workbook	Certification scheme	Workbook Junior Business Facilitator
16.	UAS - can produce proof of competency as third evidence				Experience undertaking 3 units of competency in a simulated context		

\*) Class hours are 1 CH each, and/or the weight of each is in context.

\*\*\*) References: Barringer and Ireland (2019) – Entrepreneurship; Junior Business Facilitator certification framework; SKK-KWU-UAI-01- Entrepreneurship

### Discussion

The research on developing the Semester Learning Plan (SLP) based on the integrated certification scheme and instructional design aims to align educational outcomes with industry standards and competency requirements for Junior Business Facilitators. This approach ensures that

students are equipped with the necessary skills and knowledge to thrive in entrepreneurial roles, particularly in the context of tourism business development. The key findings and structure of the learning plan are summarized as follows:

- **Instructional Goals:** The Semester Learning Plan (SLP) is structured using the ABCD model (Audience, Behavior, Condition, Degree), ensuring that competencies are clearly defined, measurable, and aligned with specific learning objectives. For example, participants are expected to identify business opportunities, develop business ideas, and conduct feasibility analyses within particular contexts. Okolie et al., (2020) supports this by highlighting that the ABCD model ensures instructional goals are clear, specific, and measurable, making it easier to align competencies like opportunity identification and feasibility analysis with instructional objectives. Ruiz-Martín & Bybee, (2022) also emphasizes the importance of the ABCD model in articulating measurable learning outcomes, conditions, and performance criteria, ensuring that instructional goals are not only well-defined but also applicable to real-world scenarios.
- **Study Material and Learning Activities:** Each week's plan includes specific study materials, learning activities, and student experiences that range from lectures and discussions to hands-on practice and demonstrations. The primary goal is to ensure that students can apply theoretical knowledge in practical settings. Naik, (2023) emphasizes the value of structured weekly plans, incorporating a mix of lectures, discussions, and practical exercises to enhance student engagement and ensure the application of learned concepts. Similarly, Sobko et al., (2020) highlights the role of collaborative learning activities, where students engage in discussions and produce digital artifacts, enhancing learning outcomes through interaction and teamwork. Radović et al., (2021) points out that learning environments rich in practical elements such as hands-on tasks and experiential learning help bridge the gap between theory and practice in higher education. Mahapoonyanont & Gudmundsson, (2023) also stresses the importance of incorporating lectures, discussions, hands-on practice, and demonstrations in weekly plans, reinforcing the structured and practical approach to learning.
- **Assessment Criteria:** The plan clearly outlines detailed assessment criteria and passing indicators for each competency unit. For instance, participants are required to demonstrate their ability to develop business concepts and analyze competitors through practical tasks and self-assessment exercises. Ayadat et al., (2020) highlights the importance of competency-based materials like videos and teaching modules that provide flexibility and accessibility, supporting students in applying these concepts to real-world scenarios, particularly in tourism management. Han et al., (2024) emphasizes the need for clear rubrics and assessment indicators in competency-based education, explaining how assessments are structured to evaluate practical competencies such as business concept development and competitor analysis. These rubric-based evaluations not only align with expected competencies but also encourage self-reflection through task-based assessments. Tanzo, (2023) underscores the importance of conducting continuous formative evaluations through small-group testing and expert reviews to refine and validate educational materials. González-Mujico, (2023) further stresses the role of rubric-based frameworks in assessing practical skills, ensuring that tasks like business concept creation and competitor analysis are measured effectively and in alignment with learning objectives.
- **Integration with Micro-credential Certification Framework:** The Semester Learning Plan (SLP) is closely aligned with the Junior Business Facilitator certification framework, ensuring that the instructional content and assessment methods meet the standards set by the certification body. This integration supports a seamless transition from education to professional certification. The Commonwealth of Learning, (2019) highlights how micro-credentials offer a flexible, modular, and relevant approach to learning and assessment, tailored to meet professional standards. Similarly, Fischer et al., (2022) discusses how micro-credential frameworks, particularly in European higher education, contribute to the development of certification systems that are closely aligned with industry needs. Pirkkalainen et al., (2023) emphasizes the importance of aligning micro-credential frameworks with labor market demands, ensuring a smooth transition from academic learning to professional certification. Ahsan et al., (2023) further stresses that learning design should be developed to meet both industry and educational requirements, facilitating a seamless pathway from education to professional certification.

- Formative and Summative Evaluations: Formative evaluations are conducted throughout the semester to provide continuous feedback and facilitate improvement, while summative evaluations, such as mid-term (UTS) and final exams (UAS), assess students' overall competency and readiness to enter the professional field. Khaled & Khatib, (2020) highlights the importance of continuous formative evaluation throughout the learning process, focusing on providing feedback that enhances student performance. Similarly, Bin Mubayrik, (2020) stresses that formative assessments are designed to continuously improve the learning process, while summative assessments evaluate the students' competency after course completion. Alt et al., (2023) echoes the importance of formative assessments in offering ongoing feedback to promote learning. Paloposki et al., (2024) demonstrates how integrating weekly formative assessments, such as homework assignments, replaced the traditional final exam, promoting a continuous learning and evaluation process throughout the course.

The Semester Learning Plan developed in this research provides a structured and integrated approach to teaching entrepreneurship. It aligns educational activities with certification standards, ensuring that students are not only well-prepared academically but also professionally validated through a recognized certification scheme. This alignment enhances the employability and career readiness of graduates in the entrepreneurial sector.

## CONCLUSION

The study developed a micro-credential certification framework for Junior Business Facilitators, integrating it with instructional design. The framework aligns with industry requirements, facilitating a smooth transition from education to professional certification. The ABCD model was used to formulate learning objectives, ensuring students acquire relevant skills. Assessment instruments include multiple-choice tests and practical workbook assessments. The integration of micro-credential certification with instructional design has proven effective in enhancing graduates' competitiveness in the job market. Future research could explore the long-term impact of micro-credential certification on career progression and employability, and explore the scalability and adaptability of the framework across different educational levels or disciplines. Emerging technologies, such as digital badges or blockchain, could also be explored to enhance the recognition and portability of micro-credentials across industries and regions.

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