

## The mediating role of Outcome-Based Education in the effects of financial, digital, and human literacy on student entrepreneurial success

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### Abstract

This study examines the mediating role of the Outcome-Based Education curriculum in shaping the influence of financial, digital, and human literacy on students' entrepreneurial success. While prior research recognizes the importance of literacy skills for entrepreneurial performance, limited attention has been given to how curriculum design can facilitate the development and application of these competencies. Addressing this gap, the study aimed to explore the mechanisms through which an Outcome-Based Education framework supports literacy integration to enhance entrepreneurial outcomes. A mixed methods approach was employed, combining quantitative analysis to assess literacy levels and qualitative investigation to examine how curriculum structures mediate these relationships. Findings indicate that digital and human literacy contribute to student business ventures directly or indirectly through the curriculum, whereas financial literacy does not exert a measurable effect. The results underscore the complex interplay between curriculum design, literacy competencies, and entrepreneurial performance. The study highlights the importance of intentionally structured educational programs that integrate essential skills development, guiding educators, curriculum developers, and policymakers seeking to strengthen entrepreneurship education and foster student success in business initiatives.

**Keywords:** Curriculum design; digital literacy; entrepreneurial outcomes; human literacy; Outcome-Based Education.

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## 1. INTRODUCTION

In today's rapidly evolving economic landscape, the development of entrepreneurial skills among students is increasingly recognized as essential to their future success. Entrepreneurship not only drives innovation and economic growth but also empowers individuals to navigate a dynamic job market and create opportunities for themselves and others. However, the journey to entrepreneurial success demands more than just innovative ideas; This requires a comprehensive set of literacy, including financial, digital, and human skills. This paper explores the important role of the Outcome-Based Education (OBE) curriculum in mediating the impact of this literacy on student success in entrepreneurial endeavors, with a particular focus on perspectives from economic education.

In recent years, the entrepreneurial landscape has witnessed a tremendous surge in startup business formation across various industries. These start-ups play an important role in driving innovation, economic growth, and job creation. However, startup success and sustainability remain complex and challenging endeavors, influenced by the interaction of multifaceted factors (Okrah et al., 2018). These various problems are very important to be taught to students who will soon plunge into the real world of work and business

As college graduates, especially economics and business majors, it is very important for them to immediately be able to apply the knowledge they have in real economic activities, one of which is the ability to start a new business, so that to meet these demands, universities need to equip them, especially in understanding how to build a successful business. In an effort to understand the critical factors of startup success, lectures to learn financial literacy, digital literacy, and human literacy have become very important because they have emerged as important competencies for aspiring entrepreneurs. Financial literacy includes the knowledge and skills needed to effectively manage financial resources, make informed financial decisions, and navigate the intricacies of funding and investment (Suparno et al., 2023). Digital literacy, on the other hand, refers to proficiency in utilizing digital technologies and tools to improve operational efficiency, marketing strategies, and overall business performance (Mithas et al., 2011). In addition, human literacy demonstrates interpersonal and managerial skills essential for effective leadership, team collaboration, and conflict resolution in entrepreneurial ventures (Unger et al., 2011).

While the importance of these dimensions of literacy is well recognized, it is equally important to examine the educational frameworks that facilitate their development. In the field of Economic Education, Outcome-Based Education (OBE) has garnered considerable attention as a dynamic and learner-centered pedagogical approach (Obaydullah et al., 2020; Ohatkar et al., 2022). OBE emphasizes defining clear learning outcomes and aligning instructional practices to achieve these goals (Xu et al., 2024; Mahrishi et al., 2025). By integrating OBE into the Economic Education curriculum, educators can better equip students with the competencies needed to thrive in the dynamic startup world.

The main focus of this paper is to explore the role of the OBE curriculum as an intervention variable mediating the impact of financial literacy, digital literacy, and human literacy on startup business success. This study seeks to bridge the gap in the literature by examining the interconnections between these vital literacies and start-up performance, while simultaneously exploring the catalytic effects of the OBE curriculum in shaping and amplifying its influence (Chan & Chan, 2009).

Good learning about human literacy, digital literacy, and financial literacy, especially those that are practically needed in building a business, will provide much-needed provisions for students (Akcil et al., 2021). The dynamic landscape of the business world, coupled with the emergence of the digital era, has paved the way for the proliferation of startup companies in various industries. As these start-ups strive for success and sustainability, the interaction of various important competencies becomes crucial in determining their trajectory. Among these competencies, financial literacy, digital literacy, and human literacy emerged as the main pillars that significantly affect the success of start-up companies (Suparno et al., 2023).

Financial literacy includes the knowledge and skills needed to manage financial resources, make informed financial decisions, and effectively navigate the complexities of funding and investing. In the digital age,

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financial literacy goes beyond traditional financial management to include understanding digital financial tools and optimizing financial strategies in the digital landscape.

Digital literacy, on the other hand, refers to the ability to engage with digital technologies, tools, and resources effectively and critically (Uzunboylu et al., 2022). In the context of startup companies, digital literacy empowers entrepreneurs to leverage digital tools for marketing, communication, data analysis, and operational efficiency, among other aspects, to gain a competitive advantage.

Human literacy, also known as soft skills, consists of a variety of interpersonal, social, and emotional competencies that enable effective communication, teamwork, leadership, and adaptability. For startups, human literacy plays an important role in fostering a positive work culture, encouraging collaboration, and building meaningful relationships with customers, partners, and stakeholders (Unger et al., 2011).

### 1.1. Literature review

The literature on entrepreneurship education underscores the importance of equipping students with multifaceted literacy skills to thrive in a dynamic business environment. Financial literacy, which includes knowledge of financial concepts and practices, is identified as an important determinant of entrepreneurial success, enabling individuals to effectively manage resources and make informed financial decisions. Similarly, digital literacy, which involves proficiency in leveraging digital technologies for communication, collaboration, and innovation, has become indispensable in the contemporary entrepreneurial landscape. In addition, human literacy, which consists of interpersonal skills, emotional intelligence, and adaptability, plays an important role in fostering effective leadership, team dynamics, and customer relationships in entrepreneurial ventures.

#### 1.1.1. Outcome-Based Education (OBE)

The Outcome-Based Education (OBE) approach is a learner-centered educational methodology that emphasizes a clear definition of specific learning outcomes or competencies that students must achieve at the end of a course or program. Instead of focusing solely on the content covered or time spent in class, OBE shifts focus to what students are expected to know, understand, and be able to do as a result of their learning experience (Chan & Chan, 2009; Juen et al., 2010; Tenedero & Pacadaljen, 2021).

In the OBE Curriculum approach, the educational process revolves around the following key principles:

1. **Clear and Measurable Learning Outcomes:** OBE begins with the identification and articulation of clear and measurable learning outcomes or competencies. These outcomes are specific, observable, and demonstrable, allowing educators to assess whether students have achieved the desired knowledge, skills, and attitudes.
2. **Alignment of Teaching and Assessment:** Once learning outcomes are established, instructional methods, activities, and assessments align with these outcomes. Educators design teaching strategies that actively engage students in developing required competencies and ensure that assessments measure the extent to which students have achieved those competencies.
3. **Focus on Mastery and Application:** OBE emphasizes mastery of skills and knowledge rather than just memorization. It encourages students to apply what they have learned in real-world contexts, promoting deeper understanding and application of practical concepts.
4. **Continuous Improvement:** OBE is an iterative process that drives continuous improvement. Assessment data is used to evaluate the effectiveness of learning strategies and to continuously refine the curriculum. This data-driven approach enables educators to enhance the learning experience and better support student achievement.
5. **Learner-Centered Approach:** OBE puts the learner at the center of the educational process. It recognizes that each student learns at their own pace and in their own unique way. As a result, the curriculum is designed to accommodate diverse learning styles and needs, fostering a supportive and inclusive learning environment.

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6. **Active Engagement and Learning:** OBE encourages active learning, where students are actively engaged in their learning journey. This can involve problem-solving activities, group projects, experiential learning, and hands-on experience, all of which promote higher-order thinking skills and critical inquiry.

7. **Transparency and Accountability:** With clear learning outcomes and transparent assessment criteria, OBE promotes accountability for students and educators. Students know what is expected of them, and educators are responsible for facilitating the achievement of these outcomes.

The OBE Curriculum approach has gained popularity in a variety of educational settings, including higher education institutions, vocational training programs, and K-12 schools. Its focus on student-centered learning and measurable outcomes aligns with the demands of the modern workforce, where employers are looking for graduates who possess relevant skills and competencies (Akir et al., 2012). By integrating the OBE Curriculum approach into Economic Education, educators can effectively equip students with the knowledge, skills, and attitudes necessary to excel in the entrepreneurial landscape. OBE's methodology supports the development of financial literacy, digital literacy, and human literacy by ensuring that the curriculum is designed intentionally to nurture these competencies, empowering students to succeed in their entrepreneurial endeavors (Limon et al., 2016; Liu & Li, 2022; Xu et al., 2023).

### 1.1.2. Financial literacy

Financial literacy is especially important in the digital age, where technology has dramatically changed the way we manage money, conduct transactions, and access financial information. In this rapidly evolving digital landscape, financial literacy plays an important role in empowering individuals to navigate the complexities of personal finance, make informed decisions, and secure their financial well-being (Braunstein & Welch, 2002); thus, digital literacy learning becomes something very important and even mandatory to be given in Higher Education.

Financial literacy learning will cover various aspects related to financial digitalization that is happening today. As we know in the digital era, various financial services are already available through online platforms and mobile applications, shaping the personal finance landscape. Understanding these offerings, from mobile banking to online investment platforms, relies on financial literacy (Gomber et al., 2017). Understanding this will empower students to be able to navigate digital financial services confidently and securely. Today's surge in digital transactions poses a high risk of cybersecurity threats and financial fraud. Financial literacy equips students with the acumen to identify potential fraud, protect their personal and financial data, and engage in secure online transactions (Siriopoulos, 2021). In addition, as digital investing and trading become more accessible, financial literacy becomes instrumental for students can learn in understanding investment strategies, evaluate risk, and make informed decisions. Similarly, digital tools streamline financial planning and budgeting, with financial literacy allowing students to learn to utilize these resources effectively. From choosing cost-effective payment methods to understanding cryptocurrencies and blockchain technology, financial literacy is essential in navigating the complexities of digital finance. It also fosters awareness of data privacy rights and secure online shopping practices. In addition, the digital world offers a plethora of financial education resources, which, when coupled with financial literacy, can enhance an individual's financial knowledge and capabilities. Importantly, digital financial inclusion relies on financial literacy, ensuring that underserved populations can leverage digital financial services to improve their economic prospects and financial well-being.

Financial literacy is very important for students to understand in the digital era, to help students have the ability to utilize digital financial services, protect themselves from financial risks, and make sound financial decisions. By encouraging financial literacy, it is emphasized in learning that students can better navigate the digital landscape and harness its potential for their growth and financial well-being someday (Braunstein & Welch, 2002).

### 1.1.3. Digital literacy

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Digital literacy refers to the ability to effectively and critically engage with digital technologies, tools, and resources in a meaningful and purposeful way. It encompasses a range of skills and competencies that enable individuals to navigate, evaluate, create, and communicate using digital technologies. In today's technologically-driven world, digital literacy has become a fundamental aspect of everyday life, impacting various areas such as education, employment, communication, information access, and social interactions. (Eshet, 2004).

Digital literacy encompasses a diverse range of skills crucial for navigating today's technology-driven world. From basic digital proficiency to advanced critical thinking and problem-solving abilities, individuals must possess a multifaceted understanding of digital tools and resources. Skills such as information literacy and online collaboration are essential for accessing and leveraging digital information effectively, while digital security and privacy knowledge are vital for safeguarding personal data in an increasingly interconnected digital environment. Moreover, digital citizenship underscores the importance of ethical and responsible digital behavior, emphasizing respect for intellectual property rights and adherence to legal standards. As technology continues to evolve, adaptability and lifelong learning become indispensable traits, ensuring individuals remain adept at leveraging new technologies and adapting to changing digital landscapes. In essence, cultivating digital literacy empowers individuals to thrive in the digital age, enabling them to navigate, communicate, create, and problem-solve in diverse digital contexts (Kurniawan, 2020).

Digital literacy is essential in education, as it empowers students to engage with digital learning resources, collaborate online, and develop digital research and presentation skills. In the workplace, digital literacy is increasingly valued, as many jobs now require employees to use digital tools and platforms efficiently. Moreover, digital literacy also plays a crucial role in bridging the digital divide, promoting inclusivity, and ensuring equal access to opportunities in the digital age. By developing digital literacy skills, individuals can confidently participate in the digital society, access information and services, and contribute to economic and social progress. (Alfia et al., 2020). Digital literacy is a foundational skillset that empowers individuals to navigate the digital world effectively and responsibly. It is an essential aspect of modern life, enabling people to thrive in various personal, educational, and professional contexts (Eshet, 2004).

Learning digital literacy to students is becoming increasingly important in the era of digitalization, which is experiencing rapid growth. The integration of digital literacy into the Outcome-Based Education (OBE) curriculum can be a strategic step to ensure students have skills that are relevant to the demands of the times.

#### **1.1.4. Human literacy**

Human literacy, also known as human skills or soft skills, refers to a set of interpersonal, social, and emotional competencies that enable individuals to interact and communicate effectively with others. Unlike technical or hard skills, which are job-specific or task-specific, human literacy encompasses a broader range of abilities that are valuable across a variety of personal and professional contexts. These skills are essential for building positive relationships, collaborating with others, and navigating social situations successfully (Nikolajeva, 2010).

Effective interpersonal skills cover a broad spectrum of competencies that are essential for successful communication and collaboration in a variety of personal and professional settings. This includes proficiency in conveying ideas clearly and concisely through verbal and non-verbal means, coupled with active listening to understand the perspective of others; interpersonal skills also affect individual commitment (Bambacas & Patrickson, 2008). Interpersonal skills foster empathy, which plays an important role in fostering understanding and compassion for individual emotions and needs, facilitating meaningful interactions.

Human literacy will be able to foster emotional intelligence and increase self-awareness and empathy by recognizing and managing one's own emotions as well as those of others. Teamwork and collaboration require the ability to work cohesively in groups, appreciate diverse viewpoints, and contribute to collective goals. Conflict resolution skills are essential to resolve disputes constructively, and skills to utilize emotions effectively will ensure a respectful resolution (Sari et al., 2020). Human literacy will increase adaptability and flexibility, which are necessary attributes to navigate changing circumstances and maintain resilience in

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challenging situations. Understanding to be able to adapt flexibly, including efficient time management, can involve prioritizing tasks and setting schedules to optimize productivity. Human literacy can also influence leadership qualities, including inspiring and guiding others, encouraging teamwork, and taking initiative in problem-solving efforts (Sticht, 1983).

Human literacy is increasingly recognized as an important aspect of personal and professional development. Employers often value these skills because they contribute to a positive work environment, improve team dynamics, and foster effective leadership. In today's interconnected world, where collaboration and communication span global boundaries, human literacy plays an integral role in successful interpersonal interactions both in person and through digital channels. In addition, human literacy complements technical expertise, as individuals with strong human skills can communicate their ideas and work effectively with others to achieve common goals. This is especially important in customer service, sales, management, teaching, counselling, and any role that involves direct interaction with people (Sticht, 1983).

As automation and artificial intelligence continue to impact the job market, human literacy is becoming more valuable. These skills are inherently human and difficult for machines to replicate, making them resilient in the face of technological advances. In conclusion, human literacy is a fundamental skill that enables individuals to build positive relationships, communicate effectively, and navigate social situations with confidence and empathy. Combining technical ability with human literacy promotes personal growth, fosters strong team dynamics, and opens doors to new opportunities in different areas of life.

So many important things are contained in human literacy; it is very important to teach students so that with good human literacy learning skills, students will be able to apply it in the real world when they interact in society after they leave college (Hidayat & Yunus, 2019).

## **1.2. Purpose of study**

While previous research has explored the individual impact of these literacies on start-up success, understanding their collective influence becomes important. Therefore, this study aims to investigate the simultaneous impact of financial literacy, digital literacy, and human literacy on the success of startup companies, recognizing their interdependent and synergistic nature. For quantitative purposes, the hypotheses of this study are formulated as follows:

1. Financial literacy has a significant effect on student success.
2. Digital literacy has a significant effect on student success.
3. Human literacy has a significant effect on student success.
4. Financial literacy has a significant effect on OBE implementation.
5. Digital literacy has a significant effect on OBE implementation.
6. Human literacy has a significant effect on OBE implementation.
7. OBE implementation has a significant effect on student success.
8. Financial literacy has a significant effect on student success through OBE implementation.
9. Digital literacy has a significant effect on student success through OBE implementation.
10. Human literacy has a significant effect on student success through OBE implementation.

## **2. METHODS AND MATERIALS**

This study employs a mixed-method approach, combining quantitative analysis and qualitative examination to explore the mediation role of OBE curriculum in the relationship between literacy competencies and student success in entrepreneurial ventures. The main point discussed in the qualitative approach is to find out the extent to which universities have made efforts in achieving learning objectives through the OBE curriculum, so that in this study, it is necessary to know what programs have been carried

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out by universities and how the views of lecturers in implementing university policies, especially in the implementation of the OBE curriculum, while the quantitative approach in this study is aimed at knowing the results of OBE implementation, which is reflected in students' perceptions of the implementation of the curriculum, and how the implementation of the curriculum can provide strong provisions for students to start new businesses.

### 2.1. Data collection instruments

Quantitative data will be collected through surveys measuring the levels of financial, digital, and human literacy among participants. Subsequently, qualitative interviews and focus group discussions will be conducted to gain deeper insights into the mechanisms through which the OBE curriculum influences entrepreneurial outcomes.

### 2.2. Participants

This research data was generated from in-depth interviews involving lecturers who taught courses related to the three literacy tested in this study while quantitative data was generated from the results of questionnaires distributed to students who has been graduated from university through data tracing (*Tracer Study*) to find graduates who immediately started a business after the OBE curriculum was implemented, using the purposive sampling method, 97 graduates were found who had predetermined criteria that could be used in this research sample.

### 2.3. Data analysis technique

Quantitative analysis conducted to determine the extent to which the role of the OBE-based curriculum can mediate the improvement of financial literacy, digital literacy and human literacy in improving students' business abilities, the construct of this study consists of three independent variables, namely Financial Literacy (X1), Digital Literacy (X2) and Human Literacy (X3) while the OBE Curriculum functions as an Intervening Variable (z) and student success in starting a business as variable dependent (Y), quantitative data in this study was then analyzed using path analysis done with the help of SEM-PLS software.

## 3. RESULTS

### 3.1. Research findings in financial literacy learning

To ensure digital literacy is mastered by students, most universities in Makassar City Indonesia implement an internship system by collaborating with banking financial institutions and other relevant parties to build students' financial literacy skills, before the internship is carried out in general, universities have carried out a learning process to support the implementation of effective internships students have been equipped with basic knowledge Related to financial literacy taught in compulsory courses, in general, courses to support financial literacy in universities are seen in Table 1 as follows:

**Table 1**

*Financial literacy support courses (the expertise group in financial literacy)*

Expertise Item	Courses	OBE Support Activity
Analyzing and understanding the Financial data	- Corporate Financial Management	Outcome-Based Education (OBE) can play a significant role in supporting financial literacy among students by providing a structured framework for developing and assessing essential skills and competencies. Here are some ways in which OBE can support financial literacy: 1. Clear Learning Outcomes. 2. Integrated Curriculum Design 3. Real-World Application Through Internship and Project 4. Assessment of Competencies
	- Risk management	
	- Feasibility Study	
	- Financial Report Analysis	
	- Tax	
	- Stock Market	
	- Business Research	
	- Business Statistics	
	- Business Math	
	- Economic	

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	- Operational Research	5.	Student-Centered Learning
	- Cost management	6.	Progress Monitoring and Feedback
	- Accounting Management	7.	Preparation for Future Success
	- Stock Market		
Understanding the market conditions through Financial data	- Feasibility Study		
	- Operational Research		
	- Business Statistics		
Cost savings through data management	- Corporate Financial Management		
	- Cost Management		

In the OBE concept, the courses to be taught to students have gone through in-depth analysis by linking the vision and mission into the graduate profile which then this will greatly determine the determination of graduate learning outcomes, graduate learning outcomes are then translated into course learning outcomes which will be the basis for preparing semester learning plans (lecture syllabus) to ensure more active learning. Some courses are directed through a project-based learning system and involve internships carried out by students with strategic partners of the universities. However, practically, the implementation of the curriculum is not too easy. One of the successes of implementing the curriculum, in this case, the OBE-based curriculum, must also get good support and understanding from lecturers; for that, in this study, interviews have been conducted with lecturers to find out how far they understand and support the implementation of the OBE-based curriculum.

The results of in-depth interviews about what should be taught in improving student financial literacy in general can be concluded that there are 10 supporting factors in building students' financial literacy skills, which can be seen in Table 2 as follows:

**Table 2**  
*Important factors in improving financial literacy*

No	Main principles	Explanation
1	Setting Clear Learning Objectives	Set specific, measurable goals related to financial literacy. For example, students must be able to understand basic concepts about budget management, investment, debt, and savings.
2	Designing a Relevant Curriculum	Integrate financial literacy materials into curricula relevant to student study programs. Ensure that the material is presented in a context that suits the needs and interests of students.
3	Using Various Learning Methods	Use a variety of learning methods, such as lectures, group discussions, case studies, role plays, and real projects, to help students understand financial literacy concepts in depth and integrate them.
4	Use of Interactive Learning Resources	Provide interactive learning resources such as learning videos, online simulations, and financial education software to help students practice the concepts they learn in real-world situations.
5	Formative and Summative Assessment	Use formative (during learning) and summative (after learning) assessments to measure students' understanding and ability in financial literacy. This can include written exams, projects, or presentations.
6	Provide Constructive Feedback	Provide constructive feedback to students about their progress towards achieving financial literacy learning goals. Encourage reflection and continuous improvement.
7	Encourage Active Participation	Encourage active student participation in financial literacy learning activities such as seminars, workshops, or investment clubs. This can increase their motivation and involvement in learning.
8	Collaboration with Financial Institutions and Professionals	Form partnerships with financial institutions and finance professionals to provide students with practical insights and hands-on experience. This can involve guest speakers, internships, or field trips.

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9	Integrating Local Study Cases	Include local study cases or examples relevant to students' financial situations, so they can understand financial literacy concepts in a more familiar context.
10	Evaluation and Continuous Improvement	Evaluate the effectiveness of financial literacy programs regularly and use the results to make necessary improvements.

### 3.2. Research findings in digital literacy learning

To develop digital literacy, universities also encourage the implementation of intensive digital technology learning by providing briefings to students related to digital technology and its very dynamic development today, especially with the jargon of the ongoing digitalization century. Strengthening digital literacy is a serious matter for all universities. In the implementation of digital practices in general, universities provide several project-based tasks both independently and in groups. Internship projects are also carried out by involving various organizations associated with the development of digitalization in these organizations.

In Table 3, here are the courses given to students to improve their digital literacy

**Table 3**

*Digital literacy support courses (the expertise group on digital literacy)*

Expertise Item	Courses	OBE Support Activity
Ability to use technology	- Information technology introduction - Management Information System - e-Business - Business Computer application - Technopreneur	Outcome-Based Education (OBE) can effectively support the development of digital literacy among students by providing a structured framework for defining, assessing, and fostering essential digital skills and competencies. Here's how OBE can promote digital literacy: 1. Clear Learning Outcomes 2. Integrated Curriculum Design 3. Hands-On Learning Activities 4. Assessment of Digital Competencies
Ability to manage technology	- Information technology introduction - Management Information System - e-Business	
Ability to understand and access technology	- Business Computer application - Technopreneur - Production and Operation Management - Integrative Business Practice	
Understanding technology applications	- Management Information System - e-Business - Technopreneur - Business Computer Application	

The results of in-depth interviews about what should be taught in improving students' digital literacy in general can be concluded that there are 7 supporting factors in building students' digital literacy skills. In Table 4, here are some steps you can take to link digital literacy learning to OBE-based curricula:

**Table 4**

*Important factors in improving digital literacy*

No	Main principles	Explanation
1	Clear Digital Learning Goal Setting	Identify the digital learning objectives to be achieved in the context of the OBE curriculum. These goals must be specific, measurable, achievable, relevant, and time-related (SMART)
2	Integration of Digital Literacy into the Curriculum	Plan how digital literacy can be integrated into every aspect of the curriculum, including learning materials, practicum activities, projects, and assessments. Ensure that each learning activity supports the achievement of the digital literacy goals that have been set

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3	Development of Relevant Learning Materials	Design and develop learning materials that are relevant to students' digital literacy needs. Such materials may include the use of digital tools and technologies, online security and privacy, information evaluation, and other relevant digital skills.
4	Application of the Project-Based Learning Approach	Use a project-based learning approach to provide practical experience to students in developing digital literacy skills. In the context of the OBE curriculum, these projects should be designed to achieve the learning objectives that have been set and enable students to demonstrate their understanding through tangible products or works
5	Outcomes and Performance-Based Assessment	Design an assessment system that measures students' achievement in digital literacy based on concrete outcomes and their performance in a tangible context. The assessment should be closely linked to the learning objectives that have been set and allow students to demonstrate their mastery of digital literacy skills.
6	Development of Collaboration and Communication Skills	Provide opportunities for students to collaborate and communicate effectively in a digital environment. This can be done through online discussions, group projects using collaborative platforms, or collaboration with external partners in industry or communities
7	Continuous Monitoring and Evaluation	Conduct continuous monitoring and evaluation of the effectiveness of digital literacy learning in the context of the OBE curriculum. Use feedback from students, faculty, and other stakeholders to continually improve and adjust learning approaches.

By linking digital literacy learning with an Outcome-Based Education curriculum, students will have a better opportunity to develop skills and understanding relevant to the demands of the times, preparing them to face the challenges and opportunities of the evolving digital age.

### 3.3. Research findings in human literacy learning

Human literacy represents a principal component within organizational contexts, as individuals constitute the core intellectual resource or brainware that drives organizational development and performance. Without humans who have ethics and understand norms and have emotional and intellectual intelligence, there will be no organization that grows and develops; for that, human literacy becomes a very essential thing. In the Indonesian context, three compulsory courses must be studied by every student in Indonesia, namely the Religion course, the Pancasila course, and the Language course. The three courses are closely related to human literacy problems. Apart from the three compulsory courses, in general, the supporting courses for human literacy in Indonesia are as follows:

**Table 5**

*Human literacy support course (the expertise group in human literacy)*

Expertise Item	Courses	OBE Support Activity
Leadership, Team	- Self Development	Outcome-Based Education (OBE) can effectively support the development of human literacy among students by providing a structured framework for fostering essential interpersonal skills, empathy, and teamwork. Here's how OBE can promote human literacy: 1. Clear Learning Outcomes 2. Integrated Curriculum Design 3. Collaborative Learning Activities 4. Experiential Learning Opportunities 5. Assessment of Interpersonal Competencies 6. Promotion of Emotional Intelligence
Cooperation, Cultural	- Leadership	
Maturity	- Five Principles and Citizenship	
Extraversion, agreeableness,	- Language	
conscientiousness, emotional	- Self Development	
stability, openness to	- Leadership	
experience	- Five Principles and Citizenship	
	- Language	
	- Religion	
Human intelligence	- Self Development	
(human, innovation, creativity,	- Leadership	

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reputation, motivation, and Capability)	-Organizational behavior	7.	Cultivation of Leadership Skills
	- Language	8.	Preparation for Citizenship and Civic Engagement
	-Design Thinking and Innovation		
	- Human Resources Management		
	-Total Quality Management		
	- Marketing management		
	-Corporate Strategic Management		
	- Law and Business Ethics		

Learning to develop Human Literacy based on the implementation of the Objective-Based Education (OBE) curriculum can pay attention to several important principles. Human Literacy encompasses a deep understanding of oneself, human relationships, as well as the knowledge, skills, and attitudes that enable one to function optimally in a complex society. The results of interviews with lecturers who support the development of human literacy at least ... Important factors in the development of human literacy in higher education are as follows:

**Table 6**  
*Important factors in improving human literacy*

No	Main principles	Explanation
1	Contextual and Relevant	Learning materials should be relevant to everyday life and the social, economic, and cultural context in which students live. It helps students to see the immediate relevance of what they are learning in their lives.
2	Collaborative and Interactive	Learning should involve collaboration between students, teachers, and communities to promote deeper understanding. Group discussions, collaborative projects, and problem-based activities can increase student engagement and facilitate better understanding.
3	Active Engagement	Students should be actively involved in the learning process, not just as recipients of information. Active engagement can be achieved through conversation, experimentation, problem-solving, and reflection.
4	Emphasis on Critical and Creative Thinking Skills	Learning should encourage the development of critical and creative thinking skills, including the ability to analyze, evaluate, synthesize, and create new solutions. It helps students face complex and diverse challenges in everyday life.
5	Use of Digital Technology and Resources	Technology can be used as a tool to improve accessibility, flexibility, and interactive learning. The use of online learning platforms, digital resources, and educational applications can help support student-centered learning.
6	Lifelong Learning	Learning should not only focus on academic knowledge, but also on developing the skills, attitudes, and values necessary to become a lifelong learner. This includes the ability to learn independently, adapt to change, and continually develop oneself.
7	Providing Constructive Feedback	It is important to provide constructive and relevant feedback to students so that they can understand their strengths and weaknesses, as well as identify areas where they can improve their performance.
8	Authentic and Formative Evaluation	Evaluations should be designed to reflect real-world demands and provide opportunities for students to demonstrate their understanding through real performance. Continuous formative evaluations allow teachers and students to track their progress over time.

9	Value- and Ethic-Centered Learning	It is important to include values and ethics in learning so that students can develop a better understanding of their social and moral responsibilities as members of society.
10	Reflection and Metacognition	Students need to be allowed to reflect on their learning experience and develop metacognition, i.e., awareness of their own learning process. This helps them become more effective and independent learners.

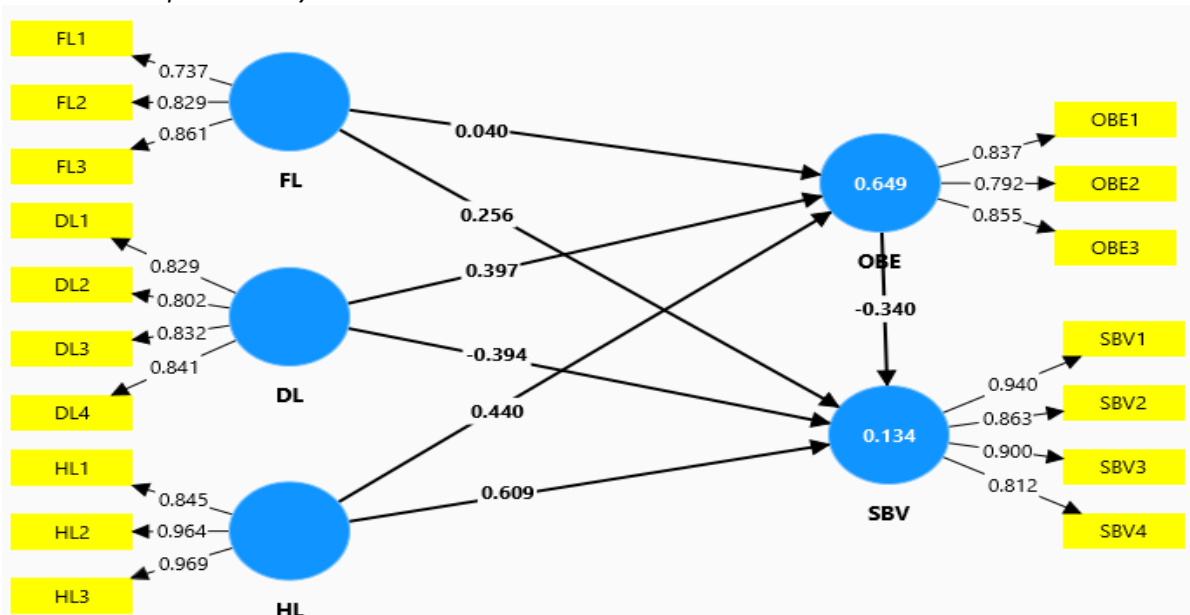
The results of the above research indicate that if the OBE curriculum has been implemented in universities that are used as samples in this study, the results of the study also show that the principles of OBE, especially as a basis for curriculum preparation, have been carried out which are illustrated in the stages of preparation stages that are in accordance with the important stages of the OBE concept, the stages of implementation and evaluation have also been well implemented, Furthermore, can these qualitative facts be properly analyzed quantitatively as scientific evidence to know that OBE has a significant impact on students, especially in pioneering new businesses in the context of economic education

### 3.4. Statistics test results

The quantitative data of this study was processed from the results of questionnaires that had been distributed to 200 students as respondents consisting of questionnaires for the variables Financial Literacy, (X1) Digital Literacy (X2) and Human Literacy (X3) as well as questions on the OBE curriculum implementation variables as Intervening Variables (Z) and questions on student success in starting new businesses as dependent variables (Y). Data analysis is carried out in accordance with the stages and procedures applicable in SEM-PLS. This includes outer model analysis, inner model analysis, decision making on research hypotheses, both on direct and indirect influences.

In the SEM-PLS analysis, the loading factor value is considered good if it has a value above 0.7. The results of data processing using SEM-PLS software show that all loading factor values have a value of ( $\lambda$ ) > 0.7. Thus, all research data can be identified as good data and meet the criteria to be continued at the next stage of analysis.

**Figure 2**  
Partial least squares analysis



A value above 0.7 in the good fit model indicated that the data was legitimate. The AVE value showed the level of data quality needed to achieve a satisfactory fit greater than 0.5. Additionally, the data's dependability was confirmed by the reliability analysis, as evidenced by the Cronbach alpha value exceeding 0.6. For every

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indicator, the data quality testing over 0.7 was decided by the composite reliability value. Data analysis is displayed in Table 3.

**Table 7**

*The goodness-of-fit model*

Variable	Items	Validity	AVE	Composite Reliability	Cronbach Alfa
Financial Literacy	FL1	0,737	0,657	0,851	0,739
	FL2	0,829			
	FL3	0,861			
	DL1	0,829			
Digital Literacy	DL2	0,802	0,682	0,896	0,845
	DL3	0,832			
	DL4	0,841			
	HL1	0,845			
Human Literacy	HL2	0,964	0,861	0,949	0,917
	HL3	0,969			
	OBE1	0,837			
Objective-Based Education	OBE2	0,792	0,686	0,868	0,773
	OBE3	0,855			
	SBV1	0,940			
Student Business Venture	SBV2	0,863	0,774	0,932	0,903
	SBV3	0,900			
	SBV4	0,812			

### 3.5. Hypothesis result

The hypothesis in this research is carried out to prove whether there is an influence between the dependent variable and the independent variable, and whether or not there is an influence between the independent variable and the dependent variable through intervening variables. The results of this study answer the research hypothesis with the following details:

1. Financial literacy did not affect student-to-student Business Venture (sig. P-value 0.256>0.05), thus the H1 of the study is rejected
2. Digital literacy affects students' business venture (sig. P-value 0.045<0.05), thus the H2 of the study is accepted
3. Human literacy affects student business venture (sig. P-value 0.006<0.05), thus the H3 of the study is Accepted
4. Financial Litigation did not affect OBE Implementation (sig. P-value 0.672>0.05), thus the H4 of the study is rejected
5. Digital literacy affects OBE Implementation (sig. P-value 0.001<0.05), thus the H5 of the study is Accepted
6. Human literacy affects OBE Implementation (sig. P-value 0.000<0.05), thus the H6 of the study is Accepted
7. Implementation of OBE affects student business Venture (sig. P-value 0.011<0.05), thus the H7 of the study is Accepted
8. Financial Literacy did not affect student business venture through OBE implementation (sig. P-value 0.705>0.05), thus the H8 of the study is rejected
9. Digital literacy affects student business venture through OBE Implementation (sig. P-value 0.028<0.05), thus the H9 of the study is Accepted

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10. Human literacy affects student business venture through the implementation of OBE (sig. P-value  $0.034 < 0.05$ ), thus the H10 of the study is Accepted.

**Table 8**

*Hypothesis result*

	Sample Mean	Std. Deviation	T Statistic	P. Value
The Effect of Financial Literacy on Student Business Venture	0,240	0,214	1,135	0,256
The Effect of Digital Literacy on Student Business Venture	-0,508	0,264	2,006	0,045
The Effect of Human Literacy on Student Business Venture	0,455	0,165	2,776	0,006
The Effect of Financial Literacy on the Implementation of OBE	0,036	0,094	0,423	0,672
The Effect of Digital Literacy on the Implementation of OBE	0,398	0,121	3,278	0,001
The Effect of Human Literacy on the Implementation of OBE	0,449	0,076	5,818	0,000
The Effect of Implementation of OBE on Student Business Venture	-0,345	0,133	2,549	0,011
The Effect of Financial Literacy on Student Business Ventures Through the Implementation of OBE	-0,015	0,036	0,378	0,705
The Effect of Digital Literacy on Student Business Venture Through Implementation of OBE	-0,134	0,061	2,201	0,028
The Effect of Human Literacy on Student Business Venture Through Implementation of OBE	-0,156	0,071	2,124	0,034

#### 4. DISCUSSION

The results of this study indicate that digital literacy and Human Literacy affect student business ventures either directly or through mediation from the implementation of the OBE-based curriculum; however, for financial literacy, this variable does not affect student business ventures either directly or through mediation of OBE curriculum applications.

Digital literacy has an influence on student business ventures because digital problems need to be studied and understood well, especially with the massive and dynamic development of digitalization, so that learning related to it is very important. The results of this study are in line with the factual conditions regarding the need for digital literacy for students, especially in the fields of economics and business. In the implementation of the OBE curriculum, universities continue to make adjustments to digital developments in addition to providing theoretical learning, so through the OBE curriculum, students are directed to carry out real practice in the use of digital media through internships and project-based learning. What universities have done related to Digital learning that has been analyzed qualitatively has proven to affect Student Business Venture, as evidenced by statistical calculations in quantitative analysis.

Similar results are shown from the analysis of human literacy variables, the results of quantitative analysis of this study show that human literacy affects both directly and indirectly on student business ventures because basically understanding human resources is a very important factor in every organization, Humans as organizational brain were become the central figure and key to success in business, for that understanding human resources is very important human literacy is one of the instructions to be able to manage these very essential resources to support the business to be run. Human literacy learned by students is getting better with the implementation of industrial internship internships that are very open, usually university partners are very welcome to accept internship students who aim to understand the factors of human resource management, thus being a very appropriate reason if human literacy affects student business ventures because of the

support of the OBE curriculum and this is also proven through statistical analysis that has been shown through the results of this study.

This research proves that if Financial literacy does not affect Student Business Venture either directly or indirectly, it is important to learn finance as a literacy but financial problems have their own standards, students can learn finance well through a theoretical approach but it cannot guarantee the same results in real money management practices, from the theoretical side, universities have provided excellent debriefing, but in fact students are very difficult when they want to practice directly through internships associated with financial management, many companies do not provide flexibility in student internships in finance because these problems are sensitive and are often associated with confidential company issues. Besides this, it turns out that practically to start a business, one of the most difficult and main problems is the problem of capital and funding; thus, although students know the problems of financial management theoretically, in practice, there are many obstacles associated with financial problems.

This research will give practical implications in the importance of collaboration between economic education departments and other disciplines, such as business, technology, and psychology, which can enrich the educational experience and better prepare students for entrepreneurial ventures. Interdisciplinary initiatives and joint programs can provide students with diverse perspectives, practical skills, and cross-cutting knowledge essential for success in today's interconnected business world. Besides that, this research will impact on the empirical validation of educational strategies. Educators and policymakers should conduct further empirical research to evaluate the efficacy of educational interventions aimed at enhancing financial, digital, and human literacy skills within the context of OBE. Longitudinal studies tracking student outcomes, qualitative assessments of pedagogical approaches, and comparative analyses across educational institutions can provide valuable insights into effective teaching methodologies and curriculum design principles.

The research highlights the pivotal role of Outcome-Based Education (OBE) as a mediator of financial, digital, and human literacy's impact on student success in entrepreneurial ventures. By leveraging these findings, educational stakeholders can implement targeted interventions, refine curriculum frameworks, and foster a conducive learning environment to empower students with the diverse skill set necessary for thriving in the dynamic landscape of entrepreneurship.

The research will contribute to theoretical understandings of literacy, curriculum design, educational paradigms, and socio-cultural influences on entrepreneurship. By elucidating the mediating role of Outcome-Based Education (OBE) curriculum in shaping student success through financial, digital, and human literacy, the study enriches theoretical frameworks and informs future research directions in the field of economic education.

## 5. CONCLUSION

Based on the detailed research findings, the conclusions of this research are as follows:

1. The study found that financial literacy did not have a significant effect on student business ventures (sig. P-value  $0.256 > 0.05$ ), leading to the rejection of Hypothesis 1 (H1).
2. Digital literacy was found to positively affect students' business ventures (sig. P-value  $0.045 < 0.05$ ), thus supporting Hypothesis 2 (H2).
3. Similarly, human literacy showed a significant positive impact on student business ventures (sig. P-value  $0.006 < 0.05$ ), confirming Hypothesis 3 (H3).
4. Financial literacy did not significantly influence the implementation of Outcome-Based Education (OBE) (sig. P-value  $0.672 > 0.05$ ), resulting in the rejection of Hypothesis 4 (H4).
5. On the other hand, digital literacy was found to have a significant effect on OBE implementation (sig. P-value  $0.001 < 0.05$ ), supporting Hypothesis 5 (H5).

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6. Human literacy also demonstrated a significant positive impact on OBE implementation (sig. P-value  $0.000 < 0.05$ ), confirming Hypothesis 6 (H6).

7. The implementation of OBE was found to positively affect student business ventures (sig. P-value  $0.011 < 0.05$ ), supporting Hypothesis 7 (H7).

8. However, financial literacy did not have a significant indirect effect on student business ventures through OBE implementation (sig. P-value  $0.705 > 0.05$ ), leading to the rejection of Hypothesis 8 (H8).

9. Conversely, digital literacy was found to have a significant indirect effect on student business ventures through OBE implementation (sig. P-value  $0.028 < 0.05$ ), confirming Hypothesis 9 (H9).

10. Similarly, human literacy demonstrated a significant indirect effect on student business ventures through the implementation of OBE (sig. P-value  $0.034 < 0.05$ ), supporting Hypothesis 10 (H10).

In conclusion, while financial literacy did not directly impact student business ventures or OBE implementation, digital literacy and human literacy emerged as significant factors influencing both student business ventures and the successful implementation of OBE. Furthermore, the study highlights the importance of OBE in fostering entrepreneurial skills among students and emphasizes the role of digital and human literacy in enhancing student outcomes in business ventures within the educational context.

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**Ethical Approval:** The study adheres to the ethical guidelines for conducting research.

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## REFERENCE

- Akcil, U., Uzunboyulu, H., & Kinik, E. (2021). *Integration of Technology in Learning-Teaching Processes and Google Workspace Tools: A Literature Review*. *Sustainability* 2021, 13, 5018. <https://www.academia.edu/download/104705102/pdf.pdf>
- Akir, O., Eng, T. H., & Malie, S. (2012). Teaching and learning enhancement through outcome-based education structure and technology e-learning support. *Procedia-Social and Behavioral Sciences*, 62, 87-92. <https://www.sciencedirect.com/science/article/pii/S1877042812034568>
- Alfia, N., Sumardi, S., & Kristina, D. (2020). Digital native students' perceived competence on digital literacy: A study of digital native students at a private Islamic junior high boarding school. *AKSARA: Jurnal Bahasa Dan Sastra*, 21(1), 74-87. <https://jips.fkip.unila.ac.id/index.php/aksara/article/view/20411>
- Bambacas, M., & Patrickson, M. (2008). Interpersonal communication skills that enhance organisational commitment. *Journal of Communication Management*, 12(1), 51-72. <https://www.emerald.com/insight/content/doi/10.1108/13632540810854235/full/html>
- Braunstein, S., & Welch, C. (2002). Financial literacy: An overview of practice, research, and policy. *Fed. Res. Bull.*, 88, 445. [https://heinonline.org/hol-cgi-bin/get\\_pdf.cgi?handle=hein.journals/fedred88&section=158](https://heinonline.org/hol-cgi-bin/get_pdf.cgi?handle=hein.journals/fedred88&section=158)
- Chan, A., & Chan, C. H. (2009). A new outcome-based curriculum: its impact on student core competence. *Journal of applied research in higher education*, 1(2), 24-32. <https://www.emerald.com/insight/content/doi/10.1108/17581184200900011/full/html>
- Eshet, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of educational multimedia and hypermedia*, 13(1), 93-106. <https://www.learntechlib.org/p/4793/>
- Gomber, P., Koch, J. A., & Siering, M. (2017). Digital Finance and FinTech: current research and future research directions. *Journal of Business Economics*, 87(5), 537-580. <https://link.springer.com/article/10.1007/s11573-017-0852-x>

- Hidayat, M. (2025). The mediating role of Outcome-Based Education in the effects of financial, digital, and human literacy on student entrepreneurial success. *Cypriot Journal of Educational Science*, 20(4), 229-246. <https://doi.org/10.18844/cjes.v20i4.9511>
- Hidayat, M., & Yunus, U. (2019). The entrepreneurship learning in industrial 4.0 era (case study in an Indonesian college). *Journal of Entrepreneurship Education*, 22(5), 1-15. [https://www.researchgate.net/profile/Muhammad-Hidayat-47/publication/340297274\\_THE\\_ENTREPRENEURSHIP\\_LEARNING\\_IN\\_INDUSTRIAL\\_40\\_ERA\\_CASE\\_STUDY\\_IN\\_INDONESIAN\\_COLLEGE/links/5e82f8d4299bf1a91b8d1f16/THE-ENTREPRENEURSHIP-LEARNING-IN-INDUSTRIAL-40-ERA-CASE-STUDY-IN-INDONESIAN-COLLEGE.pdf](https://www.researchgate.net/profile/Muhammad-Hidayat-47/publication/340297274_THE_ENTREPRENEURSHIP_LEARNING_IN_INDUSTRIAL_40_ERA_CASE_STUDY_IN_INDONESIAN_COLLEGE/links/5e82f8d4299bf1a91b8d1f16/THE-ENTREPRENEURSHIP-LEARNING-IN-INDUSTRIAL-40-ERA-CASE-STUDY-IN-INDONESIAN-COLLEGE.pdf)
- Juen, J. W. Y., Pang, V., & Vitales, J. W. (2010). OBE curriculum implementation process in Politeknik Kota Kinabalu: a possible evaluation framework. *DIGES PKK EDISI 1*, 2011. [https://www.academia.edu/download/33202768/DIGES\\_PKK\\_EDISI\\_1\\_TAHUN\\_2011.pdf#page=34](https://www.academia.edu/download/33202768/DIGES_PKK_EDISI_1_TAHUN_2011.pdf#page=34)
- Kurniawan, T. (2020). Digital literacy strategy in the industrial revolution era 4.0. *ISCE: Journal of Innovative Studies on Character and Education*, 4(1), 127-136. <http://iscjournal.com/index.php/isce/article/view/83>
- Limon, M. R., & Castillo Vallente, J. P. (2016). Outcomes-Based Education Integration in Home Economics Program: An Evaluative Study. *Journal of Educational Issues*, 2(1), 289-304. <https://eric.ed.gov/?id=EJ1127492>
- Liu, L., & Li, Y. (2022). Teaching paradigm reform of economic and management courses based on the integration of OBE concept and PAD mode. *Advances in Applied Sociology*, 12(9), 470-483.
- Mahrishi, M., Ramakrishna, S., Hosseini, S., & Abbas, A. (2025). A systematic literature review of the global trends of outcome-based education (OBE) in higher education with an SDG perspective related to engineering education. *Discover Sustainability*, 6(1), 620. <https://link.springer.com/article/10.1007/s43621-025-01496-z>
- Mithas, S., Narayan, R., and Sambamurthy, V. (2011). Institutional Knowledge at Singapore Management University. *Research Collection School Of Information Systems*, 3(1), 237–256.
- Nikolajeva, M. (2010). Literacy, competence and meaning-making: a human sciences approach. *Cambridge Journal of Education*, 40(2), 145-159. <https://www.tandfonline.com/doi/abs/10.1080/0305764X.2010.481258>
- Obaydullah, A. K. M., Rahim, M. A., & Rahman, M. S. (2020). Concept of outcome-based education: Primary science. *International Journal of Advanced Research And Innovative Ideas In Education*, 6(2), 1401-1407. [https://www.researchgate.net/profile/A-K-M-Obaydullah/publication/340465277\\_Concept\\_of\\_Outcome\\_Based\\_Education\\_Primary\\_science/links/5e8bc07a4585150839c635be/Concept-of-Outcome-Based-Education-Primary-science.pdf](https://www.researchgate.net/profile/A-K-M-Obaydullah/publication/340465277_Concept_of_Outcome_Based_Education_Primary_science/links/5e8bc07a4585150839c635be/Concept-of-Outcome-Based-Education-Primary-science.pdf)
- Ohatkar, S. N., & Deshpande, A. M. (2022). Outcome-based education: A learner-centric pedagogical framework with case studies in digital communication and signal processing courses. *Journal of Engineering Education Transformations*, 38-42B. <https://journaleet.in/index.php/jeet/article/view/241>
- Okrah, J., Nepp, A., & Agbozo, E. (2018). Exploring the factors of startup success and growth. *The business & management review*, 9(3), 229-237. [https://cberuk.com/cdn/conference\\_proceedings/2019-07-14-09-58-17-AM.pdf](https://cberuk.com/cdn/conference_proceedings/2019-07-14-09-58-17-AM.pdf)
- Sari, D. I., Rejkiningsih, T., & Muchtarom, M. (2020). The concept of human literacy as civics education strategy to reinforce students' character in the era of disruption. In the *3rd International Conference on Learning Innovation and Quality Education (ICLIQE 2019)* (pp. 1132-1141). Atlantis Press. <https://www.atlantispress.com/proceedings/icliqe-19/125933474>
- Siriopoulos, C. (2021). Financial markets are not efficient: Financial literacy as an effective risk management tool. *The International Journal of Business and Management Research*, 9(1), 65. <https://zuscholars.zu.ac.ae/works/4164/>
- Sticht, T. G. (1983). Literacy and human resources development at work: Investing in the education of adults to improve the educability of children. *HumRRO Professional Paper*. <https://psycnet.apa.org/record/1984-21567-001>
- Suparno, D., Tjahjawan, I., Martodiryo, S., Anshary, A. H., Indrariansi, E. A., & Suwondo, T. (2023). The influence of financial literacy, digital literacy, digital marketing, brand image, and word of mouth on the Z generation's interest in Islamic banks.

- Hidayat, M. (2025). The mediating role of Outcome-Based Education in the effects of financial, digital, and human literacy on student entrepreneurial success. *Cypriot Journal of Educational Science*, 20(4), 229-246. <https://doi.org/10.18844/cjes.v20i4.9511>
- [https://www.academia.edu/download/105478802/The\\_influence\\_of\\_financial\\_literacy\\_Vol\\_7\\_4\\_2023.pdf](https://www.academia.edu/download/105478802/The_influence_of_financial_literacy_Vol_7_4_2023.pdf)
- Tenedero, E. Q., & Pacadaljen, L. M. (2021). Learning experiences in the emerging outcomes-based education (OBE) curriculum of higher education institutions (HEI'S) on the scope of Hammond's evaluation cube. *Psychology And Education*, 9(58), 2. [https://www.researchgate.net/profile/Lanie-Pacadaljen-2/publication/353879537\\_Learning\\_Experiences\\_In\\_The\\_Emerging\\_Outcomes-Based\\_Education\\_OBE\\_Curriculum\\_Of\\_Higher\\_Education\\_Institutions\\_HEI'S\\_On\\_The\\_Scope\\_Of\\_Hammond's\\_Evaluation\\_Cube/links/611643e81ca20f6f861bf876/Learning-Experiences-In-The-Emerging-Outcomes-Based-Education-OBE-Curriculum-Of-Higher-Education-Institutions-HEIS-On-The-Scope-Of-Hammonds-Evaluation-Cube.pdf](https://www.researchgate.net/profile/Lanie-Pacadaljen-2/publication/353879537_Learning_Experiences_In_The_Emerging_Outcomes-Based_Education_OBE_Curriculum_Of_Higher_Education_Institutions_HEI'S_On_The_Scope_Of_Hammond's_Evaluation_Cube/links/611643e81ca20f6f861bf876/Learning-Experiences-In-The-Emerging-Outcomes-Based-Education-OBE-Curriculum-Of-Higher-Education-Institutions-HEIS-On-The-Scope-Of-Hammonds-Evaluation-Cube.pdf)
- Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, 26(3), 341-358. <https://www.sciencedirect.com/science/article/pii/S0883902609000998>
- Uzunboyulu, H., Prokopyev, A. I., Kashina, S. G., Makarova, E. V., Chizh, N. V., & Sakhieva, R. G. (2022). Determining the opinions of university students on the education they receive with technology during the pandemic process. *International Journal of Engineering Pedagogy*, 12(2). <https://search.ebscohost.com/login.aspx?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=21924880&AN=155819139&h=nGTSqkXKQyU2fD7DHR5wwW1bWizqdu%2FFzW5KANWRqCtjPZL%2Bt%2FLf4xnl6ZZ0xvhFmCkoXG92oUqktjOWvmGsAw%3D%3D&crl=c>
- Xu, Y., Mao, B., & Liu, D. (2023). Research on the teaching reform of macroeconomics based on the OBE concept. *Creative Education*, 14(6), 1230-1238.
- Xu, Z., Ge, L., He, W., Song, G., Liu, J., Hou, L., ... & Li, X. (2024). Developing a BOPPPS (Bridge-in, Objectives, Pre-assessment, Participatory Learning, Post-assessment, and Summary) model combined with the OBE (Outcome-Based Education) concept to improve the teaching outcomes of higher education. *Humanities and Social Sciences Communications*, 11(1), 1-13. <https://www.nature.com/articles/s41599-024-03519-y>