

# Assessment-driven Module Development Framework for Business Training involving Small Scale Malaysian Entrepreneurs

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**Abstract:** *This paper presents the Quality Assured Module Maker (QAMM) framework, a strategic conceptual tool crafted for the development of high-quality training modules and continuous program evaluation of the Financial Literacy Program (FLP). Providing business training to 3,000 small-scale Malaysian entrepreneurs under the B40 socioeconomic category, FLP operates under the auspices of the Income Enhancement Initiative (Inisiatif Pendapatan Rakyat or IPR), led by the Ministry of Economy. The program offers financial incentives to aid small-scale entrepreneurs in starting and enhancing their business operations. The FLP strategically aims to strengthen financial literacy, managerial skills, and future financial capacity of its participants, thereby contributing to the sustainability of their businesses. The large scale and participant base of the program necessitate the importance of high-quality modules for successful training outcomes. The QAMM framework is central to the development of 45 comprehensive modules across five thematic areas within FLP. Unique in its approach, the framework integrates educational assessment theories and methodologies, serving as a pivotal instrument for ensuring uniform and consistent training delivery. It employs constructive alignment to align training delivery with skill acquisition goals, thereby fulfilling intended objectives and ensuring high content validity. This paper articulates the theoretical foundations, components, elements, and practical applications of the QAMM framework. Significantly, the QAMM framework is utilized not only in module development but also in module evaluation, which is conducted concurrently with the module development. This ongoing evaluation provides continuous data for module improvement, exemplifying a dynamic approach to evaluation approach in entrepreneurial training. The paper delves into the innovative use of educational assessment methodologies in module development framework, addressing a significant research gap in the effectiveness of business training for small-scale entrepreneurs in developing countries.*

**Keywords:** Financial Literacy, Inisiatif Pendapatan Rakyat, Business Training, Module, Development Framework

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## 1. Introduction

In low and middle-income countries, self-employment is more prevalent than in high-income nations, with a third of workers in the former being self-employed compared to a tenth in the latter (Gindling & Newhouse, 2014). In less affluent countries, around 50 percent of self-employed individuals fall into the low-income category (Urban, 2021). These individuals typically function as small-scale entrepreneurs, often without any staff, operating their businesses as sole proprietors (Gindling & Newhouse, 2014).

Efforts to stimulate effective entrepreneurship, particularly in small-scale enterprises, are intensifying in developing regions. Entrepreneurship is increasingly recognized as a viable strategy for enhancing living standards through job creation and poverty reduction (Morris, Santos & Neumeyer, 2020; Morris & Tucker, 2021; Yessoufou, Blok & Omta, 2018). However, a substantial number of small business owners begin their entrepreneurial ventures without adequate preparation, exhibiting limited business knowledge and skills (Azamat et al., 2023; Nikwinika, 2023; Roslan, Mohd Pauzi, Ahmad, Shamsudin, Karim & Syed Ibrahim, 2018). This leads to a substantial attrition rate, with 50 percent of businesses shutting down within the first five years, and 30 percent sustaining up to ten years (Artinger & Powell, 2015; Turner & Endres, 2017; Urban, 2021).

Therefore, providing support and equipping small business owners with essential business skills is critical for ensuring business survival and enhancing business longevity (McKenzie, 2020; Morris et al., 2020; Nwodo, Ozor & Okekpa, 2017; Yessoufou et al., 2018). Among the most common strategies adopted in developing countries is the provision of basic accounting and finance training (Douda, 2017; Kirsten, 2018; McKenzie, 2020). Studies have shown that fundamental business practices such as business planning, bookkeeping, marketing, stocking strategies, and budgeting can significantly enhance productivity and growth (Kirsten, 2018; McKenzie, 2020). Even for small enterprises, improved management has been linked to increased profits and business expansion over time (McKenzie & Puerto, 2017; Roslan et al., 2018).

Module quality in business training, particularly for small business owners in developing countries, is a largely neglected topic in literature. Studies examining specific aspects within training and mechanism of training delivery have delved into trainer quality (Abeysekera, 2020; Acharya & Lee, 2018; McKenzie & Woodruff, 2014; Memon et al., 2015; Singh & Hussain, 2021; Yessoufou, Daouda & Yabi, 2021) and training platforms with the employment of both traditional and web-based platform becoming more common (Acharya & Lee, 2018; Singh & Hussain, 2021; Yessoufou et al., 2021). While the significance of content quality in influencing training effectiveness is acknowledged (Bardasi, Gassier, Goldstein & Holla, 2021; Campos et al., 2017; Drexler et al., 2014), existing studies largely concentrate on the nature of the content rather than its quality (Campos et al., 2017; Drexler et al., 2014).

There is a notable lack of studies on frameworks or models describing business training module development. Existing literature on module development frameworks primarily addresses business training at the tertiary level (Monllor, Michels & Adderley, 2023) This highlights a significant research gap, especially considering the substantial investments by policymakers in these countries to ensure the success of business training programs. Addressing this gap is crucial for enhancing the effectiveness of these programs, aligning them with the needs of small business owners and the goals of the policymakers.

The discussion in this paper delves into the significant impact of module quality on the overall efficacy of training. Central to this discourse is the notion that the development of high-quality

modules is contingent upon a robust and effective framework. In this context, the paper introduces the Quality Assured Module Maker (QAMM) framework, a pivotal tool employed in the development and evaluation of the Financial Literacy Program (FLP). The FLP, an intervention initiative, is geared towards providing 3,000 small-scale Malaysian entrepreneurs with essential financial and managerial knowledge and skills, thereby enhancing their capacity for future planning and ensuring the sustainability of their businesses. These entrepreneurs are beneficiaries of the Income Enhancement Initiative (Inisiatif Pendapatan Rakyat or IPR), receiving financial support from the Ministry of Economy. The FLP encompasses 45 modules across five thematic areas, executed nationwide over a two-year period. The QAMM framework plays a vital role in the formulation of high-quality modules, which is fundamental to achieving uniform and consistent training delivery. This aspect is particularly significant given the broad scope of the program and the diverse demographic profile of its participants.

The evaluation of the FLP is conducted in parallel with its implementation, distinguishing it from typical evaluation projects that are often initiated after the commencement of the project or reserved for impact assessment. In a departure from these norms, the evaluation of FLP was initiated at the onset of the module development process. The primary objective of this concurrent evaluation is to provide real-time evaluation data for the business training, facilitating continual program enhancement. Guiding this evaluative phase is the Quality Assured Module Maker (QAMM) framework. Integral to the QAMM framework is the principle of constructive alignment, which ensures that the training activities are effectively aligned with the objectives of skill acquisition and uphold high content validity. This approach to program evaluation and module development exemplifies a dynamic and responsive model of educational assessment, geared towards optimizing the effectiveness and relevance of the training provided.

The focus of this paper addresses a notable void in existing studies, offering significant contributions to both academia and the entrepreneurial sector. It explores the novel application of educational assessment methodologies within the entrepreneurial training sphere, a relatively uncharted area in current literature. Unlike typical module development frameworks that focus on enhancing module quality, the QAMM framework functions as a tool to ensure uniformity and consistency in training delivery across different trainers and locations. This multifaceted framework supports the development of modules that are not only relevant and timely but also versatile enough to be utilized by module developers in various fields, thereby significantly improving the quality of training through meticulously crafted modules.

## **2. Literature Review**

Integrating training with financial support enhances business management practices more effectively than standalone programs (McKenzie, 2020; McKenzie & Puerto, 2017; Yessoufou, et al., 2021; Yessoufou et al., 2018). The typical format for these business trainings usually involves engaging 15 to 40 participants in a classroom setting, under the guidance of a trainer (Douda, 2017). These trainings typically span a few days to two weeks, focusing on modules that cover a broad spectrum of accounting and finance-related topics (McKenzie, 2020).

Studies measuring the effectiveness of business training for small business owners in developing countries have predominantly focused on training delivery and mechanisms (Field, Jayachandran, Pande & Rigol, 2016; McKenzie & Woodruff, 2014; Yessoufou et al., 2018, 2021), training content (Campos et al., 2017; Drexler, Fischer & Schoar, 2014; Kar & Sarangi, 2020), and impacts (McKenzie, 2020; McKenzie & Woodruff, 2017; Yessoufou et al., 2021).

The use of randomized experiments is a recurring theme, comparing innovative methods in the treatment group with traditional approaches as control variables (McKenzie & Puerto, 2021; McKenzie & Woodruff, 2014; Nor Tutiaini, Othman, & AbdulRahaman, 2023; Yessoufou et al., 2021). Impacts are measured in terms of behavioural changes (Campos et al., 2017), improved business operation and management efficiency (Jayachandran, 2020; McKenzie & Puerto, 2017; McKenzie & Woodruff, 2014), as well as financial gains related to profitability and business expansion (Drexler et al., 2014; McKenzie & Woodruff, 2014; McKenzie & Puerto, 2017; Yessoufou et al., 2021). Intangible impacts involving perceived support (Field et al., 2016; Kar & Sarangi, 2020), knowledge gain (Jayachandran, 2020; McKenzie, 2020; McKenzie & Puerto, 2017), and business mindset (Campos et al., 2017; Laukhuf & Malon, 2015; Morris & Tucker, 2021) are examined. Psychological impacts are also measured in relation to inspiration and role modeling (Brooks, Donovan, & Johnson, 2018; Field et al., 2016), self-confidence and self-efficacy (Field et al., 2016; Campos et al., 2017).

Their effectiveness in promoting growth has been questioned, and such scepticism stems from large number of studies indicating no substantial impact of the business trainings on profits and growth (Fiala, 2018; Gine & Mansuri, 2016; McKenzie & Woodruff, 2014; Valdivia, 2015). McKenzie and Woodruff's (2014) review of randomized experiments, for example, revealed that only two out of thirteen showed an increase in profit margins. Challenges in tracking growth over time due to short study durations and low statistical power were noted (McKenzie, 2020). Traditional training methods also contributed to the minimal impact, as reported in studies assessing training effectiveness (McKenzie, 2020; McKenzie & Puerto, 2017). Furthermore, interventions in business training for small business owners showed relatively small and statistically insignificant impacts, casting doubt on the long-term sustainability of such programs (McKenzie, 2020).

Jayachandran (2020), McKenzie (2020), and McKenzie and Woodruff (2014) recognize that business training programs in developing countries aim to enhance knowledge and skills, translating these into improved business efficiency. They note, however, that for funders and policymakers, the real value of these initiatives lies in their potential to increase profitability and growth. This highlights a gap between training objectives and broader economic goals, suggesting a need for aligning training outcomes with the economic development targets of funding agencies and governments. This alignment could enhance the relevance and impact of training programs in contributing to sustainable economic growth in developing regions.

Recent studies, however, have shown more positive outcomes from business trainings in terms of small business profitability (Azamat et al., 2023; Campos et al., 2017; Drexler et al., 2014; McKenzie & Puerto, 2017; Sharafizad, 2017; Yessoufou et al., 2021). Innovations in training methods and extended duration of impact assessments (minimum three years) have contributed to these findings (McKenzie, 2020). Additionally, McKenzie (2020) emphasizes the importance of large sample sizes for accurately assessing the impact on business growth. This shift towards more effective training methods and comprehensive evaluation approaches indicates a progressive trend in enhancing small business training efficacy.

### **Training Formats and Approaches**

Business trainings delivered through innovative formats and approaches have been found to achieve higher profitability compared to traditional face-to-face training (Acharya & Lee, 2018; Brooks et al, 2018; Sharafizad, 2017; Yessoufou et al., 2021). In Brooks et al.'s (2018) study, mentorship involving experienced entrepreneurs from the same community as the small business owners had a significant impact on profit margins, more so than traditional training.

All mentees met with their assigned mentors at least once during the treatment period, and a higher number of participants appeared to be more committed to these meetings compared to their counterparts in the control group, who recorded a low attendance rate in the business training sessions. This highlights the potential of alternative training approaches in enhancing the efficacy and profitability of small businesses.

Mentoring emerges as a commonly adopted approach in enhancing the effectiveness of business training for small business owners, as highlighted in various studies (Bakhtiar et al., 2021; Elliot et al., 2020; Field et al., 2016; Lafortune et al., 2018; Laukhuf & Malon, 2015; McKenzie & Puerto, 2018; Memon et al., 2015). Interestingly, mentoring has shown a more pronounced positive effect on female entrepreneurs compared to males (Elliot et al., 2020; Laukhuf & Malon, 2015; McKenzie & Puerto, 2018). While mentoring contributes to psychological support, self-efficacy, and inspiration (Field et al., 2016; Kar & Sarangi, 2020; Laukhuf & Malon, 2015; Morris & Tucker, 2021), its influence on tangible business outcomes like sales and job creation remains limited (Bakhtiar et al., 2021). This suggests that mentoring plays a crucial role in the subjective aspects of entrepreneurial success, though its impact on objective business metrics requires further exploration.

Combining multiple methods of approaches into training delivery was found to be more effective than a single training delivery approach (Acharya & Lee, 2018; Brooks et al., 2018; Sharafizad, 2017; Yessoufou et al., 2021). Yessoufou et al. (2021), for instance, found that the combination of traditional training and one-on-one coaching approaches is the best for small businesses in developing countries. The authors experimented with a combination of three training approaches involving 354 small business owners in Benin, a country in West Africa. Of the traditional classroom type training, one-on-one coaching, and e-learning, a combination of the first two was reported to yield a significant increase in sales, profits, and job creations for the small businesses involved. Drexler et al. (2014), on the other hand, found that it was the intensity of the training content that determined training success. The authors compared standard accounting training with simplified basic financial training and discovered the rule-of-thumb version facilitated significant improvements in the participants' financial practices, objective reporting quality, and revenues.

Psychological focus, particularly a proactive mindset, is another theme targeted by business training for small business entrepreneurs (Laukhuf & Malon, 2015; Morris & Tucker, 2021). Campos and colleagues (2017) investigated the effectiveness of psychology-based personal initiative training, which promotes a proactive mindset, aiming to assert behavioral changes over traditional training formats. Success was measured through profit margin and return on investment. The authors concluded that personal initiative training was more effective, having increased firm profits by 30 percent, in comparison to traditional training that recorded an 11 percent increase in profit. Personal initiative training was also found to be cost-effective, generating the firms' capacity to pay for itself within one year.

### **3. Context**

The Quality Assured Module Maker (QAMM) framework (figure 1) was developed in response to the need for high-quality training modules for the Financial Literacy Program (FLP), aimed at enhancing the skills of small-scale Malaysian entrepreneurs. This initiative, part of the Income Enhancement Initiative (Inisiatif Pendapatan Rakyat, IPR) by the Ministry of Economy, involves 3,000 entrepreneurs classified under the B40 category, the lowest income segment earning less than RM3,855 monthly (Hazila & Sharifa Ezat, 2022; Ministry of



Economy, 2023). These participants, from urban poor and rural poor backgrounds, have been significantly impacted by the pandemic, leading to substantial job and income losses. The QAMM framework's development reflects a strategic approach to addressing these challenges through targeted, skill-enhancing training programs.

The Inisiatif Pendapatan Rakyat (IPR) employs a dual-focus strategy to enhance the incomes of the extremely poor and B40 families, while addressing their everyday economic challenges through a variety of initiatives. It emphasizes poverty eradication and income enhancement via agricultural projects, food business ventures, and service operations. A key goal of the IPR is to foster an ecosystem that includes program applicants, stakeholders, and the local community. With funding up to RM3000 from the Ministry of Economy, the program supports participants in initiating or boosting their businesses. To ensure business longevity, efficient operations, and potential expansion, providing skill development and support is crucial for maintaining participant motivation and business success (Ministry of Economy, 2023).

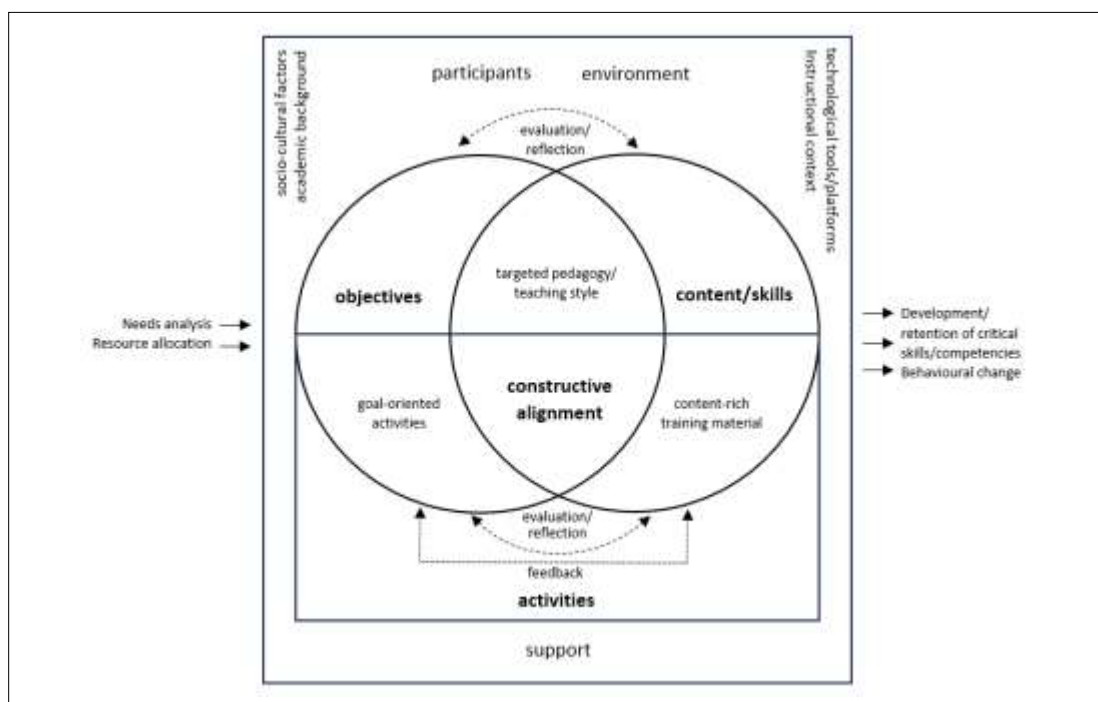


Figure 1: Quality Assured Module Maker (QAMM) framework

The FLP is designed as an intervention to impart essential skills for success in business environments. It focuses on enhancing basic accounting abilities to directly aid participants in their business operations. Additionally, it emphasizes the importance of skill development and a shift in mindset. The FLP sets out to achieve three primary objectives: 1) to enhance participants' financial knowledge, 2) to improve their financial management skills, and 3) to empower them to plan for a stable and long-term financial future. In line with these objectives, 45 modules encompassing five thematic areas were meticulously developed.

Core Module	Sustainable Financial Management (5 modules)
Elective Module 1	Entrepreneurship (10 modules)
Elective Module 2	Food Innovation (10 modules)
Elective Module 3	Agriculture and Agrotechnology (10 modules)
Elective Module 4	Mind Transformation (10 modules)

Participants are required to attend all the core modules, in addition to choosing one elective module, to complete the FLP. Training courses are conducted in various states nationwide by multiple trainers.

Various factors must be considered to ensure the effectiveness of the FLP. These include the appointment of qualified instructors, the willingness and readiness of participants, adequate resource allocation, a conducive training environment, and well-planned and well-implemented training. Nevertheless, high-quality modules are instrumental in ensuring relevant and engaging training sessions. At the heart of developing these high-quality modules is a framework that serves as a reference point in constructing valid and reliable modules.

#### **4. Underlying Theories and Approaches**

The development of the QAMM framework was informed and supported by the following theories and approaches: John Bigg's concept of constructive alignment, Assessment-for-Learning (AfL), informal assessment approaches, Integrated Assessment Framework (Brown, Denny, San Jose & Li, 2021), and the Model of Integrative Pedagogy (Hertog & Boshuizen, 2022). The following details the adoption into the process of framework development.

##### **Constructive Alignment (Biggs, 1996)**

The concept of constructive alignment emerged from Biggs' extensive research in educational psychology and his observations on the discrepancies between teaching methods and learning outcomes (Biggs, 1996; 2014). There was a notable research gap in how to effectively align teaching strategies with desired learning outcomes in a way that actively engaged students in the learning process. Constructive alignment aimed to bridge this gap by proposing a framework that linked the curriculum, teaching methods, and assessment techniques with the learning activities and intended learning outcomes (Akib, Martuty, Ghaffar & Ahmad, 2018; Biggs, 1996; Escaran, Pena, Sayson, Abella & Amparado, 2020; Hamdoun, 2023). This approach was based on the theory of constructivism, which posits that learners construct their own understanding and knowledge of the world, through experiences and reflecting on those experiences (Biggs, 2014; Bodner, 1986).

Constructive alignment plays a pivotal role in program development and accreditation processes (Abejuela, Castillon & Sigod, 2022; Akib et al., 2018; Escaran et al., 2020), especially in adhering to the standards set by the Malaysian Qualifications Agency (MQA) for program delivery in higher education (Amin, Mustaffa, Ismail & Hafiza, 2022; Md Jani, Abdul Latif & Talib, 2020). The MQA, responsible for quality assurance of higher education in Malaysia, emphasizes the alignment of educational outcomes with teaching methodologies and assessment strategies. Constructive alignment directly contributes to the enhancement of learning outcomes, standardization of course delivery, effective assessment strategies, as well as quality assurance and continuous improvement. The adoption of constructive alignment as the underlying principle ensures that programs meet the standards set by the MQA, leading to the delivery of quality education (Amin et al., 2022; Md Jani et al., 2020).

In relation to the integration of constructive alignment as a fundamental aspect of the QAMM framework, the concept assists in establishing aspects related to the alignment of learning objectives, the development of relevant and comprehensive content, the design of meaningful learning activities, as well as feedback mechanisms, and ensures validity and reliability as vital points in module development. Validity is ensured as every component of the training is directly linked to the learning objectives (Genon & Torres, 2020; Md Jani et al., 2020).

Reliability is addressed by standardizing content delivery and assessment across different iterations of the module, thus ensuring consistent learning experiences for all participants (Md Jani et al., 2020). The concept also offers contextual flexibility and adaptability. For instance, in corporate training, the framework aligns with industry standards and organizational goals, while in academic settings, it aligns with educational standards and accreditation requirements (Akib et al., 2018; Amin et al., 2020; Md Jani et al., 2020).

The adoption of constructive alignment framework ensures a holistic and systematic approach to the development of training modules. It guarantees that every aspect of the training module - from objectives and content to activities and assessments - is intentionally designed and interconnected to achieve the desired learning outcomes. This approach not only enhances the effectiveness and quality of the training modules but also ensures their relevance and applicability in diverse learning contexts.

### **Assessment-for-Learning and Informal Assessment Approaches**

Assessment-for-learning (AfL) stands as a pivotal type of assessment particularly in its role of equipping educators with essential data for crafting effective intervention strategies. Distinguished from traditional assessment methods, which often aim at quantifying learning outcomes at the conclusion of a teaching period, AfL is an ongoing process. It involves a variety of formative techniques and tools designed to provide real-time feedback about student learning progress (Akib et al., 2018; Yang, 2024).

Informal assessment activities are an indispensable component of AfL, offering a seamless and dynamic approach to gauge learning progress. Unlike formal assessments, which are often structured and periodic, informal assessments are integrated naturally into the learning activities, allowing for the immediate measurement of learning (Janeth, 2019; Philippakos & MacArthur, 2023). This real-time feedback mechanism is crucial in fostering a responsive training environment. These ongoing assessments enable instructors to gather evidence of learning spontaneously, facilitating prompt adjustments to their instructional methods to enhance training effectiveness (Diery, Vogel, Knogler & Seidel, 2020; Can Daskin, 2021; Masuku, Oloyede & Kelly, 2019). The value of informal assessments lies in their ability to transform the learning environment into an interactive, adaptive, and participant-centred space, where feedback is not only immediate but also directly influences the course of instruction, thereby significantly impacting the intended objectives (Can Daskin, 2021; Yang, 2024).

The integration of informal assessment approaches in guiding the development of QAMM framework marks a significant departure from traditional, formal assessment methods, emphasizing a more fluid and participant-centered evaluation mechanism (Box, Skoog & Dabbs, 2015). For instance, Informal assessments allow for real-time feedback, enabling trainers to adjust their methods and content on the fly (Masuku et al., 2019). Additionally, the use of informal assessments can significantly enhance participant engagement. Techniques such as group discussions, role-playing, or practical exercises not only serve as assessment tools but also actively involve participants in the learning process (dos Santos, Barreto & de Oliveira Soares, 2020; Janeth, 2019; Masuku et al., 2019). This engagement is vital for adult learners who often benefit from practical and interactive learning experiences (Philippakos & MacArthur, 2023). Moreover, the framework promotes a stress-free evaluation environment. Unlike formal tests or examinations, informal assessments are less intimidating and more conducive to honest and open demonstration of skills and knowledge. This atmosphere encourages participants to participate more freely and authentically. Informal assessments also facilitate continuous learning and improvement. They provide trainers with ongoing insights



into the effectiveness of their methods and content, allowing for iterative enhancements throughout the training program (Box et al., 2015; dos Santos et al., 2020; Janeth, 2019). Consequentially, informal assessments provide a rich source of data for evidence-based decision making. Through consistent and varied assessment strategies, trainers can gather comprehensive evidence about the training's effectiveness, participant learning styles, and areas needing improvement (Masuku et al., 2019; Philippakos & MacArthur, 2023).

### **Integrated Assessment Framework (Brown, 2021)**

The Integrated Assessment Framework (Brown, 2021) was crafted within an educational setting, highlighting the need for multifaceted assessments rather than isolated methods. This framework highlights the importance of understanding both the negative and positive psychological impacts on instructors, evaluators, and students, while focusing on the evaluation of essential skills that will benefit students in the future. Brown (2021) advocates for employing sophisticated psychometric and data analytic tools to ensure assessment scores truly represent students' knowledge and abilities, surpassing random chance accuracy.

Though initially developed in an assessment-focused environment, the framework's components are highly relevant to effective module development. It introduces four interrelated elements: curriculum, data, technology, and psychological aspects. In the context of module development, these elements are critical for enhancing module detail and thoroughness. 'Curriculum' pertains to aligning with educational goals and values within classroom dynamics and procedures (Abejuela et al., 2022; Escaran et al., 2020; Genon & Torres, 2022). The framework also sheds light on psychological factors, delving into human behaviour, attitudes, interpersonal and intrapersonal relations, and emotional aspects. Technology's role is redefined as a support for human processes, not just as an assessment platform. 'Data' involves statistical analysis that is human-centric and delves into theories of causation (Brown 2021).

Adapting this framework to the QAMM framework involves transforming its assessment-centric nature to suit training and evaluation settings. In the Financial Literacy Program (FLP) project, for example, considering participants' socioeconomic and academic backgrounds is vital for decisions on content complexity, activity nature and format, delivery level, and sufficiency. These considerations are crucial in the QAMM framework. Moreover, employing technologies that enhance human engagement is another key element. While Brown (2021) suggests using statistical data for evidence-based decision-making, the QAMM framework leans towards informal assessment tools, which might not always yield quantifiable data. Tools like quizzes, exit tickets, and exercises, along with rubric-based assessments of presentations, can provide trainers with valuable, data-driven insights for strategizing interventions (dos Santos et al., 2020; Janeth, 2019; Masuku et al., 2019). However, methods like observation and question and answer, if not recorded, do not produce tangible data (Zakaria & Abdul Latif, 2023). Nonetheless, an evidence-based approach should underpin trainers' instructional decisions (Zakaria, Care & Griffin, 2016) and be integrated into the QAMM framework. The iterative and interconnected nature of all these elements is also woven into the framework. Module developers should consider these aspects collectively, not in isolation, ensuring that technology use, for instance, aligns with psychological and socioeconomic factors to facilitate access, use, and familiarity, in addition to enhancing the quality of training engagement.

## 5. Framework Descriptions

### Components

#### i. Training Objectives: The Foundation

Training objectives are the bedrock of the constructive alignment framework. They define the intended outcomes of the training program, articulating what the participants are expected to know, understand, or be able to do by the end of the training. These objectives must be clear, measurable, and achievable, serving as a guide for both the trainer and the trainees. They provide a clear direction for the entire training process, informing the selection of content and the design of learning activities (Biggs, 1995; 2014).

In the alignment process, training objectives ensure relevance. They anchor the training content and activities to the specific needs and contexts of the learners. By starting with the end goals in mind, trainers can design a program that directly addresses the competencies and skills required in the participants' professional contexts (Genon & Torres, 2020; Md Jani et al., 2020).

#### ii. Content: The Substance

The content of the training program consists of the information, concepts, and knowledge that the participants will engage with. This content should be directly derived from the training objectives, ensuring that every piece of information presented is relevant and contributes to the achievement of the desired outcomes (Biggs, 2014).

In terms of constructive alignment, the content acts as the bridge between what the trainees need to learn (objectives) and how they will learn it (activities). It should be current, accurate, and applicable to real-world scenarios that the participants face (Abejuela et al., 2022; Biggs, 2014). The depth and complexity of the content should also be appropriate for the participants' level of expertise and experience (Zakaria et al., 2016).

#### iii. Activities: The Vehicle for Learning

Learning activities are the means through which the content is delivered and the objectives are achieved. These activities should be carefully designed to engage the participants actively, allowing them to construct their own understanding of the content. Activities might include discussions, case studies, simulations, role-playing, problem-solving tasks, and collaborative projects (Campos et al., 2017; Elliot et al., 2020; McKenzie, 2020).

In the context of constructive alignment, activities are crucial for two reasons. First, they provide the practical application of theoretical content, helping participants to internalize and make sense of the information. Second, they serve as a means of assessment, offering observable and measurable evidence of learning. Well-aligned activities enable participants to demonstrate their mastery of the content in a manner that directly reflects the training objectives (Amin et al., 2022; Biggs, 2014; Md Jani et al., 2020).

#### iv. Constructive Alignment: The Core

The convergence of training objectives, content and activities results in constructive alignment, the central component of the QAMM framework. Constructive alignment plays a pivotal role in ensuring that training objectives are both valid and reliable, underpinning the effectiveness of any training programs. At its core, this framework aligns training objectives (what learners are expected to achieve) with the instructional content and learning activities, creating a cohesive and targeted learning experience (Biggs, 1996; 2014; Abejuela et al., 2022). This alignment is crucial for validity, as it ensures that the content and activities directly contribute

to the attainment of the set objectives, thereby enhancing the relevance and applicability of the training to real-world scenarios (Genon & Torres, 2020; Md Jani et al., 2020). By consistently directing the participants' efforts towards specific, well-defined goals, the risk of deviating into less relevant content areas is minimized, leading to more efficient and goal-oriented learning (Biggs, 2014). Furthermore, reliability is bolstered through this systematic approach, as it provides a standardized pathway for all participants, ensuring a consistent quality of learning experience. The alignment also facilitates robust assessment methods that are directly tied to the objectives, enabling accurate measurement of training outcomes (Akib et al., 2018; Biggs, 2014; Escaran et al., 2020). In essence, constructive alignment not only elevates the quality of training but also ensures that the investment in educational resources yields tangible, valuable, and replicable results, making it a cornerstone of impactful and responsible training design.

#### **v. SCREAM Technique: The Heart of Constructive Alignment**

The SCREAM technique, a vital component of the framework, plays an indispensable role in formulating effective statement of training objective, thereby laying a strong foundation for successful module development and training sessions. This technique encapsulates the following:

S: Specific, C: Clearly stated, R: Relevant, E: Explicit, A: Attainable, M: Measurable  
SCREAM ensures that training objectives are not only well-defined but also strategically aligned with the intended outcomes of the module.

By adhering to the SCREAM criteria, module developers can craft objectives that are sharply focused and clearly articulated, eliminating ambiguity and providing a clear roadmap for the instructional journey. These objectives are not just theoretical anchors; they are practical signposts that guide the development of content and instructional strategies, ensuring that every aspect of the module is purposefully designed to meet these predetermined goals. The relevance and explicit nature of the objectives ensure that the training material is directly applicable to the learners' needs and contexts, enhancing the practical value of the learning experience (Biggs, 2014). Furthermore, by setting attainable and measurable objectives, instructors and developers can accurately assess the effectiveness of the training, facilitating continuous improvement (Akib et al., 2018; Biggs, 2014; Escaran et al., 2020). This is particularly crucial in settings where training is conducted by multiple instructors across various locations, as it guarantees a consistent, high-quality training experience regardless of the venue or instructor.

### **Elements**

#### **i. Iterative Nature of The Framework**

The iterative nature of the components within a framework – objectives, content, and activities – is fundamental in crafting a holistic and comprehensive approach for module development. This cyclical interplay ensures that each component informs and refines the others, resulting in modules that are not only relevant and targeted but also thorough in content coverage. For instance, clearly defined objectives set the direction for the content, which in turn shapes the design of activities. These activities then act as both a reinforcement tool for content retention and a practical application of the learned concepts, enhancing the overall learning experience. Moreover, they provide tangible evidence of whether the learning objectives have been met, feeding back into the assessment and refinement of both objectives and content.

This iterative process is vital for the continuous improvement of training modules. It allows for the dynamic adaptation and fine-tuning of each component based on feedback and evaluation, ensuring that the training remains aligned with evolving educational goals, learner needs, and

industry standards. Such iterativity in a framework is not merely a methodological preference but a necessity for ensuring that educational modules remain cutting-edge, effective, and deeply engaging, thereby maximizing the return on educational investment for both learners and educators.

## **ii. Informal Assessment Tools**

In the context of the QAMM framework, particularly in training sessions aimed at instilling business skills, the employment of informal assessments is crucial in creating an effective, non-threatening learning environment while still yielding reliable evidence of learning. Informal assessments, such as observational techniques, discussions, and reflective exercises, provide instructors with real-time feedback on learners' understanding and application of business concepts. This immediacy is invaluable in making informed instructional decisions that are responsive to the learners' needs. In such a setting, the integration of informal assessment tools allows for a fluid, learner-centered approach, where the barriers of traditional, high-stakes testing are dismantled, and learning becomes a more engaging, interactive process (Janeth, 2019; Masuku et al., 2019; Philippakos & MacArthur, 2023).

These tools offer an in-depth understanding of each participant's progress, accommodating diverse learning styles and pacing, which is essential in business trainings where practical application and personal interpretation are key. Moreover, informal assessments in the QAMM framework foster an ongoing dialogue between the instructor and participants, encouraging continuous reflection and adaptation. This not only enhances the training experience but also ensures that the training is relevant, practical, and directly aligned with the evolving demands of the business world. Therefore, the strategic use of informal assessment tools is not just a complementary approach but a fundamental component in the QAMM framework, ensuring that training sessions are dynamic, learner-centric, and effective in cultivating essential business skills and aptitude (Box et al., 2015; Masuku et al., 2019).

## **iii. Evidence-based Approach**

The centrality of an evidence-based approach to module development cannot be overstated. This approach, with its reliance on informal assessment data, ensures that training modules are not just theoretically sound, but practically effective and responsive to the participants' needs (Diery et al., 2020). Informal assessment data, such as participant feedback from activities, observational data during sessions, responses from question-and-answer (Q&A) segments, presentations, and group discussions, provide rich, real-time insights into the learning process. This data serves as a powerful tool for instructors, enabling them to make evidence-based decisions that enhance the training experience (Janeth, 2019; Masuku et al., 2019; Philippakos & MacArthur, 2023). For instance, observational data can reveal how participants engage with the material, allowing instructors to tailor future sessions for greater effectiveness. Similarly, responses from Q&A sessions or discussions can highlight areas that require more focus or clarification, ensuring that the training remains aligned with the learners' needs and the objectives of the module (Diery et al., 2020; Zakaria et al., 2016).

By integrating these forms of evidence into the development process, the QAMM framework promotes a dynamic and adaptive learning environment where instructional strategies and content are continuously refined for maximum impact. This approach not only improves the quality and relevance of the training but also fosters a culture of continuous improvement and participant-centered pedagogy.

#### **iv. Participant-centred Andragogy**

Incorporating participant-centered andragogy within the QAMM framework is crucial, particularly in training environments geared towards adult learners with varying levels of academic backgrounds. This andragogical approach, deeply anchored in constructivist principles, emphasizes the significance of aligning training styles and learning processes with the unique needs, experiences, and capability levels of participants (McCall, Padron & Andrews, 2018). By embracing this approach, module developers are encouraged to adopt a variety of instructional methods, as long as they resonate with the constructivist ethos of active, experiential learning (Wang & Gordon, 2023). Such an approach facilitates a more dynamic and engaging learning environment, where participants are not passive recipients of information, but active co-constructors of knowledge (Kobylarek, 2020; Loeng, 2018).

This is particularly effective in adult education, where learners bring a wealth of personal and professional experiences that enrich the learning process. For instance, in a module focused on professional development, incorporating strategies like collaborative projects, real-life case studies, and reflective practice allows participants to integrate new concepts with their existing knowledge and practical experience (Chen, 2014; Kobylarek, 2020). This not only enhances the relevance and applicability of the training but also fosters a deeper, more personal connection to the learning material, thereby ensuring that the training is not just informative, but transformative (McCall et al., 2018). Such a participant-centered approach within the QAMM framework acknowledges and leverages the diverse backgrounds of adult learners, making it a potent tool for ensuring that training is effective, meaningful, and resonant with the participants' professional and personal growth objectives.

#### **v. Varied Instructional Tools and Platforms**

While the emphasis on face-to-face training sessions is highly encouraged, module developers should also integrate various technological platforms to further enhance training effectiveness. The use of digital platforms caters to diverse learning preferences and facilitates accessibility, particularly for those who are geographically dispersed or have time constraints. Technology enables a richer, more interactive experience, allowing for instant feedback, collaborative learning, and the utilization of multimedia resources (Acharya & Lee, 2018; Monllor et al., 2023). This integration of technology is especially relevant in today's digital age, where adapting to and leveraging various technological tools is an essential skill (Singh & Hussain, 2021). By ensuring that training incorporates these diverse platforms, the QAMM framework supports a training process that is not only modern and relevant but also highly adaptive to the needs of adult learners, fostering an environment conducive to effective, impactful learning

#### **vi. Provision of Support**

The provision of support is another critical element in module development, playing a pivotal role in ensuring the effectiveness and success of training programs. This support, manifested through various means such as scaffolded activities, tailored guidance for complex content, additional learning materials, and access to instructor consultation, is instrumental in fostering participants' motivation and engagement. It acts as a safety net that encourages participants to explore and engage with challenging material without the fear of failure, thereby enhancing their confidence and willingness to persist with the training (Kyun, Kim, Lee & lee, 2015; Yieke, 2022). Such support is particularly crucial in adult education, where learners may have diverse backgrounds and varying levels of prior knowledge (Zakaria et al., 2016).

By embedding support mechanisms into the module design, developers ensure that the training is not just a dissemination of information, but a nurturing process that accommodates individual



learning needs and paces. This thoughtful inclusion of support within the QAMM framework serves as a constant reminder for developers to consider the learner's journey holistically, addressing potential barriers and facilitating a more inclusive and accessible learning environment. Consequently, training sessions become more than just instructional time; they transform into empowering experiences that equip participants with not only knowledge and skills but also the confidence and resources to apply them effectively in their professional and personal contexts.

### **vii. Evaluation, Reflection and Feedback**

The critical role of participant evaluation and reflection, along with instructor feedback, is paramount in enhancing the learning experience in training modules. This process is not merely about participants digesting goal-oriented activities and content-rich materials; it's about engaging deeply with them, using reflection as a tool for self-assessment and growth (Nor Tutiani, Talib, Sulaiman & Puad, 2018; Zhao & Fang, 2023). As participants reflect on their experiences and evaluate their understanding, they develop critical thinking and self-awareness, crucial for lifelong learning. Moreover, instructors play a key role by providing scaffolded, targeted feedback that respects the socio-cultural and academic diversity of the participants. This feedback is vital in guiding learners through their skill acquisition journey, making the learning experience more meaningful and personalized (Zakaria et al., 2016). Together, these elements of evaluation, reflection, and feedback create a dynamic learning environment where participants evolve from passive recipients of information to active, reflective learners, leading to more impactful and enduring learning outcomes (Zakaria, 2020; Zakaria & Abdul Latif, 2023).

## **6. Discussion and Implications**

The integration of assessment-driven theories and approaches, particularly in the context of a framework developed for business training involving small-scale entrepreneurs, represents a substantial advancement in both educational theory and business training practice. The novelty of QAMM framework lies in its comprehensive incorporation of assessment-for-learning, informal assessments, integrated assessment, and evidence-based practice, with constructive alignment at its core. The incorporation of these theories and approaches emphasizes the dynamic nature of learning, where assessment is not just a means to measure learning outcomes but a tool to enhance the learning process itself. QAMM framework contributes rich insights into the efficacy of different assessment types in practical, real-world settings. This has profound implications for the field of educational assessment, particularly in how formative assessments can be effectively used in non-traditional learning environments. This integration also offers empirical evidence supporting the value of informal assessments in tracking and fostering learning progress, especially in settings where formal assessments may not be as effective.

The QAMM framework establishes a new standard in training evaluation. It allows for a more holistic evaluation of training programs, encompassing not just the outcomes but also the processes and methodologies involved. This could lead to a deeper understanding of what constitutes effective business training, guiding future programs and research. The adaptability of the framework to various contexts and its potential for scalability contribute significantly to its value. By demonstrating its applicability in the context of small-scale Malaysian entrepreneurs, the framework provides a model that can be adapted and scaled to different entrepreneurial contexts and needs.

The significance of this paper also lies in the development of a replicable model for integrating advanced educational theories and methodologies into entrepreneurial training, a contribution that holds profound implications for both educational practice and policy formulation. The QAMM framework, characterized by its adaptability and multiple educational assessment theories and approaches, addresses a critical gap in current entrepreneurial education by aligning training content with real-world business needs through innovative assessment strategies. The framework's potential for replication across diverse educational and entrepreneurial contexts signifies a pivotal step in standardizing and elevating the quality of entrepreneurial training globally. By providing a structured yet flexible blueprint for educational design, this study not only fosters a deeper understanding of effective adult learning practices but also serves as a catalyst for policy initiatives aimed at supporting lifelong learning and professional development.

The implications of using the framework are profound and far-reaching, impacting the learning experiences and outcomes for participants, the operations of training organizations, and the policies governing educational and entrepreneurial training. For training participants, adopting the framework in the module development process leads to modules that improve the learning experience, enhance skill acquisition and application, and increase motivation and engagement through the acquisition of knowledge and practical skills that directly contribute to the success and growth of their businesses. Training organizations can significantly enhance both the quality and effectiveness of their training programs through the adoption of this framework. This enhancement stems from a more systematic and evidence-based approach to module development. The framework also encourages training organizations to adopt more advanced and effective educational practices. Policymakers are compelled to develop and implement policies that support the adoption and effective use of this framework. This support could take various forms, including funding, setting quality assurance and quality standards. Finally, the framework aligns well with broader policy objectives aimed at promoting lifelong learning and continuous professional development.

## **7. Conclusion**

This paper presents a module development framework that integrates educational assessment theories and approaches into entrepreneurial training, marking a significant stride in both educational practice and entrepreneurship education. By focusing on assessment-driven methodologies, including constructive alignment, assessment-for-learning, and informal formative assessments, the framework enhances the learning experience, skill acquisition, and practical application for small-scale entrepreneurs. Its implementation has far-reaching implications for training organizations and policymakers, advocating for the adoption of innovative educational practices and the formulation of supportive policies. This framework not only elevates the standard of entrepreneurial training but also aligns with broader objectives of lifelong learning and professional development. Consequently, this paper contributes substantially to the body of knowledge in educational theory, entrepreneurial training, and policy development, offering a replicable model for effective, evidence-based educational design in diverse learning contexts.

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