

Developing Intentional Learning Skills Among E-Commerce Student—Action Research in Metacognition Through Reflective Learning Log

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Abstract

Intentional learners are self-directed people who take charge of their education, whether in a setting or an informal setting. Learners who practice intentional learning skills choose their learning methodologies and organize their studies in accordance with their interests, preferences, and speed. This study embarks on the following objectives: (i) To look into ways how to scaffold intentional learning experiences among the student and ritualize the intentional learner's mindsets and best practice skills, (ii) To investigate the effects (through a reflective learning log) of intentional learning skill of student on their study habits and attitudes toward learning, and, (iii) To examine their critical reflection log while they are studying E-commerce module which is underpinned by the intentional learning paradigm and Hatton and Smith's framework. In this qualitative study, data from 140 students in three classes of E-Commerce were required to write reflections that would be used to determine final grades using the reflective learning log. In order to support students' purposeful learning development as they join the job market, the study's findings strongly imply that they urgently need to strengthen their reflective writing skills while enrolled in higher education. The undergraduate must also be given the fundamental tools necessary to shape them into purposeful learners through exercises in reflective learning. The Hatton and Smith reflective framework worked well for categorizing written reflections and making the reflective learning log evaluation less subjective. This study brought to light the fact that many business students were unfamiliar with the genre of reflective writing and that this genre needed to be explicitly taught in the relevant course. Hence, to support students' purposeful learning development as they join the job market, the study's findings strongly imply that they urgently need to strengthen their reflective writing skills while enrolled in higher education.

Keywords: intentional learning skills, reflective learning log, metacognition, e-commerce, UUM

1. Introduction

Learning is a skill in and of itself, and mastering it is essential for long-term professional success. People who have mastered the attitudes and techniques of successful learning can advance professionally more quickly than their colleagues and reap the rewards of all learning opportunities that come their way (Christensen, Gittleson, & Smith, 2020). Thus, to put things into perspective, the World Economic Forum has proclaimed a reskilling emergency as the world faces more than one billion employments being revolutionized by technology as a result of the development of social media, e-commerce, and Industrial Revolution 4.0 (Christensen et al., 2020). This development highlighted the significance and insistence on University Utara Malaysia (UUM) students to become intentional learners and each of them can become an intentional learner if timely intervention is carried out, and this is the sole purpose of this study. Moreover, the teaching philosophies at UUM are based on student-centered learning and outcome-based education, and the attributes of an ideal learner are developed through intentional learning, which is a process that is required for student-centered pedagogies (Cholbi, 2007).

In UUM, the learning outcome of the e-commerce module is to prepare students to deploy the Internet and intranets effectively for their company objectives and to become more competitive by utilizing all aspects of e-commerce knowledge. Students in this program learn how to develop sales websites, and business websites, and sell electronic goods and services for the B2B & B2C domain. In addition, they learn how to sell online

using a platform such as Shopee, Alibaba, and Lazada. As a result, graduates who successfully completed this module will be prepared to handle a variety of e-commerce needs and electronic business scenarios. With the help of this curriculum, our business graduates will be extremely productive in the online environment right away. They will also advance professionally if they have a solid grasp of the financial effects of e-commerce decisions. Successful managers in this era of electronic and network businesses are those who understand that things must change and prepare themselves by consciously adopting new mindsets, new ideas, and new abilities to take advantage of these changes. These managers are our future graduates.

There are two critical mindsets and five core practices for a person to become an intentional learner. Mindsets have a big impact on how we act, sometimes deliberately and sometimes unintentionally. Two mindsets—a growth mindset and a curiosity mindset—serve as particularly potent fuel for deliberate learners when built on a foundation of self-efficacy, the conviction that your activities can help you reach desired goals (Bandura, 1977). The crucial thing to remember is that these attitudes are neither fixed nor immovable, even though some people may have a natural tendency toward them. The fact that they can be produced is an element of their strength. Intentional learning skills consist of five key practices to assist intentional learners to maximize their learning opportunities: (i) Setting objectives, (ii) conserving learning time, (iii) actively seeking feedback, (iv) engaging in the intentional practice, and (v) reflecting one's performance as a benchmark for further progress (Christensen, Gittleson, & Smith, 2021). Due to the time constraint and the nature of Scholarship of Teaching & Learning (SoTL), this study intends to conduct action research on the fifth best-practice behavior, namely, reflecting to evaluate oneself and determine their progress on intentional learning through reflective (metacognition) learning log.

1.1 Research Objectives

This study embarks on the following objectives:

- 1) To investigate ways how to scaffold intentional learning experiences among the student and ritualize the intentional learner's mindsets and best practice skills, and,
- 2) To investigate the effects (through reflective learning log) of intentional learning skills of students on their study habits and attitudes toward learning, and,
- 3) To examine their critical reflection log while they are studying the E-commerce module which is underpinned by the intentional learning paradigm and Hatton and Smith's framework.

1.2 Research Questions

This study attempts to answer the following research questions:

- 1) What are the mindsets and best practices involved to become an intentional learner?
- 2) To what extent are the effects (through reflective learning log) of intentional learning skills of students on their study habits and attitudes toward learning? and,
- 3) To what extent their critical reflection is characterized by the intentional learning paradigm and Hatton and Smith's framework while they are studying the E-commerce module?

2. Literature Review

2.1 Intentional Learning

Intentional learning was incorporated into the accounting curriculum as “a strategy for learning to learn” (Francis, Mulder & Stark, 1995). A person can become an independent, lifelong learner by choosing to learn and then selecting what and how to learn (Francis et al., 1995). It is believed that learners can develop their attitudes and skills through intentional learning. Depending on the learning setting, this process is ongoing and circular and requires students to organize, connect, question, and adjust their information (Francis et al., 1995). Intentional learners are portrayed by Cholbi (2007) as highly self-aware people who want to live up to high standards and gain self-esteem from achieving learning objectives after persistent effort. When faced with academic challenges, intentional learners build learning strategies and exhibit high degrees of accountability and control over their learning processes (Mollman & Candela, 2018). For intentional learners who enjoy solving problems and are driven to develop the expertise, they can impart to others, a loosely structured learning environment with a wealth of content is appropriate (Cholbi, 2007). Intentional learners acquire knowledge that is richer, more integrated, and appreciated by them. This knowledge may also be used to solve new problems with ease (Cholbi, 2007).

Intentional learners are self-directed people who take charge of their education, whether in a formal setting or

not, according to Valjataga and Laanpere (2010). Learners that exercise learner control choose their learning methodologies and organize their studies in accordance with their interests, preferences, and speed (Valjataga & Laanpere, 2010). The goals chosen by the students serve as the direction for the cognitive process of intentional learning (Chee, 2014). Self-confident and mastery-oriented, intentional learners use the mastery approach to achieve their learning objectives (Hanham et al., 2014). Additionally, independent, self-initiated, self-regulated, and taking charge of their learning is all characteristics of intentional learners (Hanham et al., 2014; Hung, 2014). Learning is a deliberate, free choice made by students in purposeful learning who are aware of the goal of the learning process and self-monitor their learning (Hung, 2014). Simply put, intentional learners are aware of their learning objectives and actively decide how to achieve them (Spector & Kim, 2014). To learn intentionally, one needs to have the desire, comprehension, and conviction that learning is necessary, as well as the knowledge of what and how to learn. Those who are learning are very actively involved in this process, which extends beyond their participation in classroom activities. By putting learners in cognitively demanding learning settings that go beyond their initial knowledge of the topic, the intentional learning process promotes deep learning (Lee, Rooney & Parada, 2014). These definitions of intentional learning point to the learner who directs their own learning from the start through goal mastery. These learners have faith in their capacity to learn and assess it throughout the entire cognitive process to ascertain they are on track to meet their objectives (Mollman & Candela, 2018).

2.2 Metacognition Through Reflective Learning Log

All cognitive tasks, including the capacity to consider and draw lessons from experiences, depend on metacognition, self-reflection, and self-direction (Moon, 1999). Reflection is a diagnostic skill that enables a person to assess their learning demands and compare them to those of acknowledged experts, as well as to their past performance (Murray & Kujundzic, 2005). Individuals who reflect on their actions are better able to break down their actions into various parts, refine those parts, and then reassemble those parts in a way that enhances their performance (Milligan, Bingley, & Gatrell, 2005). Before, during, and after an activity is the three main times when reflection that fosters learning occurs. A cognitive task can be forecasted by just looking forward. These are the times when we are planning how we will handle a task, how we will solve an issue, or what we will say in a challenging conversation. We are considering what is to come. We are prepared to learn through this process of anticipating or planning. We can change our direction and make modifications when we reflect while an event is happening (Moon, 1999). Even though we are “in the arena,” we are aware of what is going on and are able to experiment and learn right away. Finally, retrospective reflection enables us to take stock of our performance in the past and predict how we might respond to a similar circumstance in the future (Murray & Kujundzic, 2005).

Among the various advantages of reflection, the two emerged. The relationship between introspection and self-efficacy comes first. Individual self-belief in one’s ability to learn, progress, and take the necessary actions to reach desired performance levels is at the heart of learning (Moon, 1999). Reflection starts a positive cycle of confidence-building that strengthens our sense of competence and competence (Murray & Kujundzic, 2005). Having the courage to take on more difficult problems leads to the development of both new abilities and stronger ones that already exist. Thinking back on those difficulties generates more confidence, and so forth. Reflection also lessens a person’s resistance to change, which is crucial (Moon, 1999). The best issue solvers experiment with new approaches when their previous ones fail. Because of the speed at which our job is done, being unfamiliar with something might be a big challenge. Cognitive acquaintance with novel procedures is increased by reflection (Milligan, Bingley, & Gatrell, 2005). Concerns about adjusting become less potent because one has thought about something before and is constantly considering how to improve and develop it.

3. Methodology

This study used classroom-based educational action research as its research approach (Angelo, 1991; Elliott, 1991). Reflecting on what is happening in the classroom and seeing any discrepancies between what was intended and what happened are key components of good teaching. The teacher gains a deeper grasp of his or her practice by engaging in “systematic, intentional inquiry” inside the confines of his or her classroom (Cochran-Smith & Lytle, 1993). All students registered in University Utara Malaysia’s BPME 3033 E-Commerce module had been introduced to the idea of reflection writing through the reflective learning log (Moon, 1999), which would be graded as a part of their coursework, beginning with the academic year 2021-2022. The goal of including the reflective learning log as part of the coursework mark contribution is to incentivize students to participate in the activity given that they naturally tend to act strategically when it comes to their class participation.

In this qualitative study, data from 140 students in three classes who were required to write reflections that would be used to determine final grades were collected using the reflective learning log (which could only account for a maximum of 10% of the coursework marks). Students have also been informed that they would only receive a maximum of 5% of the possible marks if they write their reflection in a very in-depth or journalistic style. As a result, the researcher found that students were able to achieve the formative assessment's learning outcome if they were able to acquire a score of more than 5% on the reflective log exercise. The careful adherence to ethical standards includes obtaining their agreement and keeping their name a secret so they could speak freely (Marshall & Rossman, 1999). Finally, we describe our findings using pseudonyms rather than real identities to preserve the students' privacy.

4. Findings and Discussions

The following Table 1 tabulates the frequency of score percentage for the graded reflective learning log.

Table 1. Frequency of score percentage for graded reflective learning log & four level reflections

Score Percentage	Frequency
1% - 5%	75 (Level 1)
6%	35 (Level 2)
7%	17 (Level 3)
8%	7 (Level 4)
9%	2 (Level 4)
10%	0

The students that received a score of 6 to 9 percentage points out of a possible 10 percentage points were all the ones who provided reflections for the results section. A total of 75 (or around 55%) of the reflective logs were classified as level 1 (from 1% to 5%), in which there were no reflections on the weekly lessons and the reflections were only descriptively written. 61 learning logs in total were used for additional analysis as a result of these learning logs being removed from the analysis. A large number of learning logs (75 logs in total) that were discarded for further analysis (about 55%) could be seen as a significant indicator that the task of doing reflection can be difficult due to a lack of ability in reflective thinking or it could also be a sign that the students were simply not interested in completing the assessment. Using a theme approach, the reflections from the 61 reflective learning logs were presented (anonymously), and all data was verbatim recorded. The data were analyzed using open coding (based on constant comparative techniques) (Strauss & Corbin, 1998) to identify themes that represented recurrent thoughts that showed up in reflections about participants' experiences with the E-Commerce module. In order to identify trends in the students' reflection themes and discussions, labels were assigned to the reflective learning logs, as shown in Table 2 below.

Table 2. Reflection topics and respondents

No	Reflection Topics	Number of Respondents
1	E-Commerce website & user experience	136
2	Selling online	136
3	E-Commerce ecosystem	112
4	Blockchain	45
5	Dynamic Pricing	67
6	5G Connectivity	34
7	Cyber Security & Fraud	48

4.1 Technical Reflections

Technical reflections are expected, and a sizable portion of the reflective learning log in this study may be categorized as "technical rationality" because "time and opportunity for development" are necessary for truly "successful reflection" (Hatton & Smith 1999). This kind of self-and-task-centered reflection is typical for my students in this e-commerce course. Additionally, many of them were unfamiliar with reflective techniques in the courses they registered for, making it likely that their reflections would center on "technical decision-making concerning imminent actions or skills;" (Hatton & Smith, 1995). A total of 75 reflective learning pieces, or

roughly 55% of them, fell into this category (ranging from 1% to 5%), where the reflections were merely written descriptively without reflections on the reflected topics. 166 views on the topics of e-commerce websites and selling online were distinguished as “technical reflections,” which predominated all issue areas. Technical thoughts were prevalent in the topics of selling online and e-commerce websites (106 out of 140). This may be due to the courses’ emphasis on the student’s personal project (creating their website and selling online) and the skills they were learning, rather than on the consequences of the fundamentals of e-commerce. At this early level of the reflective practice process, the students were considering their use of “essential abilities or generic competencies” as “applied in [a] controlled, small scale context,” even if they did so with the assistance of peers (Hatton & Smith 1995).

However, it is interesting to note that only a tiny portion of the reflections (30 out of 140) transitioned from “technical rationality” to the “descriptive reflections” level of “reflection on action” (Hatton & Smith, 1995). Five out of the seven subjects share this momentum, including the blockchain, dynamic pricing, 5G connection, cyber security, and fraud as well as the e-commerce ecosystem. This is most likely because most of the students are beginning to address both “task” and “effect concerns” associated with their project, although they are still very early in their purposeful learning growth.

The technical writings can be seen as the following extracts:

“The first step in creating an eCommerce site is to get a great domain name. The domain name is our business’s online identity. It is the address my customers will use to get to my website and make a purchase and help me build my business. So, how do we go about it?” [sic]

“A good domain name must check the following boxes: It should be short, It should be meaningful, It should be relevant to your industry, It should be brandable, It should be keyword rich” [sic]

“eCommerce is pretty much like physical retail. We buy and sell. The difference is that eCommerce operates digitally. It is simple: one of the parties pays money, and the other provides goods or services. Almost everything we can find in a brick-and-mortar store we can buy online now: books, apparel, gadgets, and food. Building an E-Commerce site has a lot of moving pieces we need to consider before jumping in headfirst. We can miss a lot of important things that we need to make our site function the way you want it to if we do not take a moment to plan” [sic].

“When I adopt a drop-shipping-based business model, I simply need to contact the manufacturer or vendor I can link with. I can get my website designed in a manner that every order reaches the vendor automatically. My partner company will pick, pack, and ship the product on my behalf. In the drop-shipping model, I do not have to worry much about inventory management. I simply must choose the products that I am selling across your portal” [sic].

4.2 Descriptive Reflections

Several reflections may be classified as “descriptive solely,” in addition to reflective learning logs that switch between “technical” and “descriptive” categories (35 out of 140). The fact that the activities being reflected on are still fresh in the students’ minds and that deeper reflection-on-action takes more time for contemplation and the scaffolding of deeper reflective processes is likely one factor contributing to the high percentage of descriptive reflections. The emphasis in these reflective learning logs is on the individual, as indicated by the following passages, but the concentration is on “best practice” as a basis for an analysis of one’s practice and processes as below:

“From my personal experience, my first eCommerce drop shipping business was an utter disaster. In fact, it did not even make even a single cent. But in the process, I learned how to develop and market an eCommerce website, which looking back was way more profitable than any amount of money that store could have produced” [sic].

“I started my first e-commerce back in December. It is not even a month but now I feel that there is a lot to learn which I initially thought I know it all. Digital marketing and specially SEO is very tough. Content is the king and photography would be a queen. It takes a lot of patience to make your initial sales. The feeling of what am I doing wrong will always stays with me. I need some motivation and

some honest reviews from my friends as well. I can think of lot of strategies on daily basis. The tough part is trying all of them and then see which one works the best for me. It is hard but it is worth the risk” [sic].

4.3 Dialogic Reflections

According to Hatton and Smith (1995) “dialogic reflections” are more “deliberative, cognitive, and narrative”, with the student practitioner “weighing competing claims and viewpoints, and then exploring alternative solutions”. The following extract on user experience in using the E-Commerce website characterized the dialogic reflections:

“In order to improve e-commerce customer experience, it is imperative that I speak to my customers. When I talk to my customers, I can get direct feedback on what they liked, didn’t like, what they were frustrated by and wished they saw but didn’t see. Customers research is the process of understanding customer’s behaviors, thoughts, and opinions on our product or service and analyzing their feedback to improve their experience and increase our revenue. There is a ton of data I can get from things like Google Analytics about what actions customers are making on my website. However, these actions do not tell me “Why” the customers are taking those actions. Therefore, I need to conduct customers’ research” [sic].

“There are two barriers stand in the way of global ecommerce growth, namely, cyber security and fraud are the biggest challenges to e-commerce growth. They are not only hampered the growth of e-commerce, but they have also resulted in significant losses. E-commerce fraud is not going away any time soon; in fact, the risk of online fraud is increasing. Beyond the financial costs, theft erodes buyers’ trust in online merchants, possibly taking even more money from e-commerce businesses. While fast delivery and a fun user experience can be enticing for customers, one data breach could destroy e-commerce business and scare loyal customers (and potential new customers) from shopping online at the store ever again. Thus, security is a business enabler and worthwhile investment now and for the foreseeable future” [sic].

4.4 Critical Reflections

In our study, “critical reflections,” as they are described in the literature, were the least common, with only a small number (nine out of 140 thoughts) falling into this category. In critical reflections, responders are “thinking about the impact upon others of their actions, taking account of social, political and/or cultural issues,” and applying these to the broader profession, claim Hatton and Smith (1995). We speculate that perhaps the E-Commerce themes’ nature prevented them from being applied to larger challenges and tended to encourage the respondents to concentrate on their unique E-Commerce topics. The few responders who did, however, discuss more general social, political, or cultural themes did so about their E-commerce topics. The extracts as below:

“Ecosystems are built around consumer needs; they go beyond simple partnerships across industry boundaries to bring together digitally accessible services or products, providing consumers with seamless experience and more choices. Ping An of China is an illustrious example of an ecosystem builder in the insurance industry. The organization goes beyond selling insurance products, offering its customers myriad services such as Ping An’s Good Doctor, PingAnfang, and Autohome. To ensure scalability, an ecosystem is often built by amalgamating the service offerings of a range of independent companies. For instance, Autohome, Ping An’s online car-purchasing platform, attracts more than 29 million unique visitors each day, generating one-third of customer leads for the Ping An’s insurance products and financial services. Customers also can derive many benefits from the ecosystems such as lower insurance premiums, convenience and better health. Ping An’s self-build ecosystem through its many independent subsidiaries generates many new customers and increases loyalty among its present customer due to the assortment of products and services available in the ecosystem” [sic].

“Blockchain and e-commerce are creating a sustainable economic ecosystem for both consumers and online retailers. As more online retailers incorporate distributed ledger technology into their business processes, they discover new ways to serve their customers. Blockchains provide them with an efficient means to improve their customer experience. First, smart contracts are computer programs that automate tasks based on predefined rules. Smart contracts can be used to create jobs that can be

automated by computer systems. They can expand an e-commerce business by reducing the cost of hiring employees. Inventory management can also be made easier with smart contracts as they make it easier to keep track of products. Second, supply chain monitoring can help online shops accomplish their targeted business goals. This is due to supply chains, which allow store owners to know what products are on the way and when they will arrive. Third, warranties and receipts are easily accessible. Consumers and businesses can save receipts and warranties of products using blockchain technology. Buyers and sellers will be able to conveniently obtain receipts and warranty data, as well as validate proof of ownership. One of the issues that purchasers experience while making online transactions is the loss of paper receipts". [sic]

"Price is a pivotal element in affecting consumer purchase behavior, and it has the significant decisive effect on whether, when and which product the consumer wants to buy, as well as the purchase quantity and other purchase-related decisions. In the highly competitive e-commerce, where customers have more choice than ever before, price can be a deal-breaker. In the realm of e-commerce, dynamic pricing playing a crucial role in promoting online products. Meaning which by successfully integrating the pricing and promotions through advanced analytics engagement. By doing so, one can understand the price elasticity of each item and then, the price elasticity curve can then be utilized to elicit the desired behavior. Generally, this is carried out to enhance sales, but it may also imply tempering client demand in order to avoid scarcity'[sic]

"One of the critical leverage points in the growth e-commerce is secure remittance/payment solution. This is not a new issue, but an issue besieged e-commerce since it started. Custom e-commerce software development with 5G can assist e-commerce entity in improving payment choices for merchants and customers. Most consumers check the security level before making a purchase. Sometimes if they find it satisfactory and simple, they will continue the entire payment process. But if they feel secure, they will exit the website and abandon the payment process. It is because there are many users who become a victim to fraud or scam during their financial transactions. Sometimes the system keeps deducting the money from the consumer account. Such fraudulent activities and security issues are the primary impediments to online purchase and online payment. However, customer can entirely protect the payment procedure on the e-commerce web business by employing 5G technology" [sic]

5. Implications of the Study

This study brought to light the fact that many business students were unfamiliar with the genre of reflective writing and that this genre needed to be explicitly taught in the relevant course. In order to support students' purposeful learning development as they join the job market, the study's findings strongly imply that they urgently need to strengthen their reflective writing skills while enrolled in higher education. The undergraduate must also be given the fundamental tools necessary to shape them into purposeful learners through exercises in reflective learning. The Hatton and Smith (1995) reflective framework worked well for categorizing written reflections and making the reflective learning log evaluation less subjective. This graded evaluation was assigned a 10% weight and is regarded as significant in grade. Although the study's findings may not be conclusive regarding the students' capacity for intentional learning through reflective writing, it would be odd if this were the case and they were unwilling to write reflectively, a dilemma that might call for more research. It is advised that the university might think about delivering coursework that includes a component of reflective writing as part of the evaluation based on the results of the 61 students who had shown proficiency in reflective writing. Therefore, if this were done, students with the same level of ability as those in this sample group would have benefited from assessments that focus on reflective ability and that allow students to create a wider perspective on the module they are studying. This will encourage the development of introspective ability, which is acknowledged as a taught behavior (Gustafson & Bennett, 1999).

The study also recommended that we should encourage our students to engage in conversation with, confront, or challenge another student (such as a close friend). Placing the learner in a safe setting where self-revelation can take place, would facilitate the reflective process. By submitting them to scrutiny in front of a peer they feel comfortable taking such risks with, students were also able to distance themselves from their thoughts, beliefs, and actions (Hatton & Smith, 1995). Even though the researcher discovered that more than half of the students were only able to complete Level 1 of reflection, as recommended by Hatton and Smith (1995), the idea of

providing additional detailed instructions will likely lead the students to certain preconceived notions about how to write reflective learning logs (Stamper, 1996), which could be detrimental. As such Holland (2013) suggested that “*it is only necessary for reflective writing skills being developed with the reflective thinking skills so as to assist in the ability of the students to write a good reflection and in the process, develop their intentional learning faculty.*”

5.1 Limitations of the Study

During their academic journey at the university, it is important to not downplay the difficulties of getting used to a grading system that most of them are not used to. Students who are telling personal experiences or writing about delicate or private subjects want guidance, assurance, and confidence. The results of this study show that most students are afraid to even attempt writing in the first person, with just a tiny fraction of them showing interest in doing so. To determine if the findings of this study solely relate to this group of students or this field of study, more research in this area needs to be done across the university. The researchers also urge additional research in the form of a comparative longitudinal study on the issues and difficulties associated with encouraging learning reflection at the undergraduate level.

6. Conclusions

Students can record and remark on E-Commerce teachings in a meaningful way by keeping a reflective learning log in the module. They can self-monitor their viewpoints in this module’s first class and keep track of how their understanding of E-Commerce has changed as the lectures go on until the end of the semester. They engage in self-discovery in the world of e-commerce while also tracking their own cognitive and personal progress. Students may identify their thinking about e-commerce, the risks involved, and the myths associated with being an aspiring online entrepreneur by keeping a reflective learning journal. Reflection can aid in a person’s ability to change, according to research. Even though most of the students registering for this module are undergraduate students who have little experience to draw from when considering specific issues (this is the findings from this study). As reflection becomes ingrained in students’ daily lives, it gives them a deep understanding of their academic and, ideally, future professional development.

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