



Fully Online In-demand Skill Training: Understanding Participant' Reason and Reaction

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Abstract: Gaining skills will aid the youth generation to obtain career opportunities and while also making their workforce efficient and in line with the current industry in the era of the 21st century. However, skill demands by industry are typically gained outside formal education settings. Thus, a new paradigm of learner-directed study has emerged as a promising development for educational sectors. This study proposes a skill-based training based on the in-demand hard-skill industry in online settings, and an investigation of participant reason and reactions to the training. The study attempted online training in the topics of User Interface and User Experience (UIX) and Social Media Marketing, which were discovered to be in demand within the Indonesian workforce. The study was able to employ 434 Indonesian registrants, however, only 151 were able to complete the post-training questionnaire. The study's analysis revealed that the majority of participants were university students looking to improve their skill sets before entering the job market. The learners responded positively to the training procedures and learning approaches. This study concluded that skill-based online training has the potential to improve industry-required skills.

Keywords: Online training, skill-based training, reaction, Kirkpatrick evaluation

1. Introduction

The world is currently experiencing a dynamic period in facing rapid technological advancements. The global development of the economy and society is influenced by three rapidly evolving phenomena: demography, the linkages between public and private institutions, and technological and scientific research developments (Blondel, 1998). Since the end of the twentieth century, UNESCO has studied and prepared for global changes in the fields of education, science, and culture for the United Nations (UN) through a series of policies, efforts, and cooperation with various countries. The education sector is a long and continuous process, and the efforts and changes that occur today will serve as the foundation for future societal change. It requires a changing role of an active and willing society to adapt to the uncertain consequences of technology, competition, and a media-dominated society (Papadopoulos, 1998).

Developments in the twenty-first century are changes in society and the economy that necessitate support from the education sector in order to meet the needs of the younger generation, who have distinct knowledge-based abilities and competencies, also known as 21st-century capabilities (Ananiadou & Claro, 2009). The capability of the twenty-first century is an important indicator of the transition from the industrial era to an era of knowledge based on information and data. Following the industrial revolution, the role of education shifted from producing factory workers to producing workers with the knowledge to realize sustainable innovation and creation (Huh & Reigeluth, 2017). This reflects the fact that 21st-century capabilities are the embodiment of one of the most ambitious goals of the

Sustainable Development Goals (SDG), namely, to achieve quality education. These objectives include ensuring that students have the necessary skills to find decent jobs, promoting sustainable development, human rights, global citizenship, and respect for diverse cultural diversity (GPE Secretariat, 2020). This issue is being addressed by a new term called 21st-century skills which consists of learning skills, literacy skills, and career-life skills. Chu et al. (2016) reveals some of the technology and information literacy frameworks developed in the range of international, national and local done by policymakers in supporting the 21st-century skills to emerge in current curricula. This was done to guide the educators and school administrators in preparing students to be equipped with the capabilities to respond upcoming unpredictable era. In regards to the implication in an educational setting, it is possible to begin by designing or redesigning learning strategy using formal and informal instructional models with reasoning skills to improve 4C (communication, collaborative, creative, and critical thinking) skills in the twenty-first century (González-pérez & Ramírez-montoya, 2022). The ability of the twenty-first century could be considered to assist learners and prospective graduates in entering the industry and professional workforce.

The Indonesian Ministry of Communication and Information Technology (2019) has already noted that Indonesia is currently experiencing struggles in terms of skills shortages in digital talent, where the demand for skilled labour in the field of technology is still inadequate to meet the needs of the industry. World Bank (2016) reports Indonesia will face a shortage of nine million semi-qualified and skilled employees in 2015-2030. There are a few indicators that lead to high youth unemployment in Indonesia including skill mismatch, lack of awareness of job opportunities and inadequate job-acquisition training (Nambiar et al., 2019; Sitanggang et al., 2022). This issue engages the Indonesian Ministry of Communication and Information Technology as a sector-leading organization to resolve the skills gap issue by establishing an intensive training scholarship in Information Technology (IT) related field called, The Digital Talent Scholarship Program (Digitalent) (<https://digitalent.kominfo.go.id/>). The main objective of the Digital Program is to improve skills and competencies, also to develop human resources competitiveness in the field of information technology, as part of the National Priority Development Progressive Programs (Ministry of Communication and Information Technology, 2019). The program targeted the Indonesian aspirants of the young workforce, civil servants, Micro Businesses, Small and Medium Enterprises (SMEs) and Indonesian citizens who have an interest in information and communication Technology.

Similar efforts and programs were also carried out by the Taiwanese Government and related organizations to build an open ecosystem in addressing talent shortage by assigning interns to the on-site training phase with the online hybrid approach, called DIGI Academy (Tsai et al., 2018). Not only is the government and organization effort visible, but so is the training effort in the formal education (Fernández-Sánchez & Silva-Quiroz, 2021; Jugănar, 2020; Lai, 2016). As higher education faces the challenge of preparing their prospective graduates to be job-ready individual (Jugănar, 2020; Tuzlukova & Heckadon, 2020). Furthermore, innovation sectors such as educational start-ups expand rapidly during the COVID-19 lockdown, to offer paid or unpaid boot camp classes for the public who wish to gain more knowledge than what they have studied during college. This disruptive educational effort has emerged as a new paradigm for anyone who desires to learn outside of formal education. This study sought to establish a training program outside of university formal education by addressing the issue of professional skilled talent shortages as well as in-demand skill and job demands in Indonesia, which could be accessed by the public.

1.1 Online Training

Training activities are considered non-formal education activities that transfer new knowledge and incorporate learner self-intentional reflection of the lifelong learning (Jugănar, 2020). Non-formal education aimed to gain skills outside of the formal education system through various channels such as face-to-face, digital, or online platforms. Remarkably, online training is recognized as an organizational strategy for providing a flexible and well-trained workforce, with the needs of training to be more optimized than a traditional course (Long et al., 2008). According to FriedrichFridrici & Lohaus (2009), online training can be considered as an alternative for institutions that face time constraints and instructor resource shortages. From a practical standpoint, several advantages of online training have been discussed to highlight the convenience that conventional training settings are unable to provide. Rodrigues et al. (2021) attempted to implement a blended training model for a group of higher education teachers by integrating an asynchronous approach with digital instructional materials displayed in a Learning Management System and a synchronous session with reflection and debates. The final result of the pilot study of the blended training model was well received and ought to be considered a success factor in the online training (Rodrigues et al., 2021). Further reported by Camiré et al. (2020) that employed online coach training programs to help coaches teach life skills using sports education resulted in a positive directional change in coaches' perceptions. Hence, this study opted for the adoption of an online training approach to developing knowledge and professional development through the proposed training environment.

1.2 In-Demand Skill

Skill can be defined broadly as an individual's investment in their personal characteristics (Green, 2016). The skills possessed by someone can inform their future professional job direction. According to Muller and Safir (2019), actual job opportunities prioritize skills over diplomas for their employees. Furthermore, emerging digitalization and shifts

in information technology have resulted in a readjustment of necessary skills for obtaining a job position (García-Pérez et al., 2021). In-demand skills are defined as greatly needed skills to support individuals in promoting their work or career opportunities. Rios et al. (2020) conducted a content analysis using data collected from 120.000 job advertisements and yielded that the four most in-demand skills in the 21st century are oral and written communication, collaboration and problem-solving. It appears that the common educational goals have been referring to in-demand skills in regard to the employability (Tuzlukova & Heckadon, 2020). A similar effort was depicted by Muller and Safir (2019), which attempted to identify the present job demands in Ukraine by using several methods, including web scraping to extract vacancies data, and then following with a content analysis of job postings. Thus, to generate in-demand skills and vacancies, it could be done by accessing the job portal website that is published to the public. Great caution must be undertaken that different countries may have dissimilar trends of accessed job portal pages.

1.3 Kirkpatrick Evaluation

Donald Kirkpatrick created the Kirkpatrick Four-Level Evaluation Model in 1954 for his doctoral dissertation. It was primarily intended to evaluate a human relations training program (Kirkpatrick, 2005). As illustrated in Fig. 1, this model is a well-known approach to assessing the impact of any specific training program through four stages: reaction, learning, behaviour, and results.

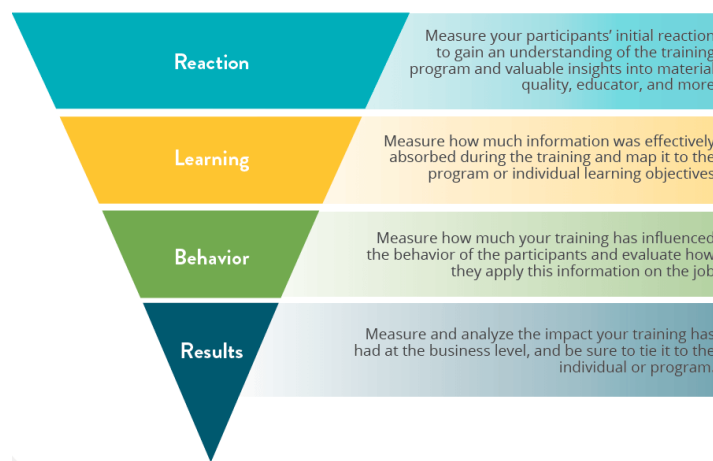


Fig. 1 - The Kirkpatrick four-level evaluation model (Hilgers, 2023)

Reaction. This level measures the actual reaction of participants toward the training program. This level also assesses the quality of training, based on the facilities, trainers and other benefits offered by the program. The outcome of this level could very well be expected by the organization or institution that conducts the program to receive feedback and suggestions from the participants. These responses could be beneficial for the matter of improvement and assessment for the next program. The best practice to measure this level could be known by the attendance of participants in joining the program, the satisfaction rates using the questionnaire and suggestions based on the training environment perceived by the participants.

Learning. This level has a correlation to the objective of the program, indeed in every training program aimed at improving the knowledge or practice of the participants. Particularly this level identifies what extent to learning occurred during the program. This level also ensures the transfer of learning occurred and reflects on the participants' experience. The best practice of this level employing the pre-test and post-test regarding measuring the participant's gained knowledge and skills after the completion of the program.

Behaviour. The behaviour level measures the changes and improvements because of the program. This level assesses whether the participants apply the experience they have gained through the program. Although it is almost impossible in measuring a behaviour instead of doing a deep observation, therefore the best practice of this level could also employ the pre-assessment and post-assessment. The supervisor or trainers could also give the overall score of each participant during and after the completion of the program. The most important thing is that the participants are aware of their changes based on behaviour, knowledge and skill gained from the program training experience.

Result. The level of result is like the level of learning and behaviour. This level also led to the degree of changes and improvement, but the difference on this level measured on the overall outcome occurred because of the training program. The contribution and improvement of the participants to the community or training provider shall be considered. This level also reflects based on the objective of the program, if the program training was conducted within an organization or business environment, therefore the return on investment (ROI) attempted to be measured.

Essentially, the evaluation should be done to ensure whether the changes are sustained and beneficial to both the participants and the provider after the program has been carried out.

1.4 Study Objective

The purpose of this study was to conduct skill-based online training in addressing the employment challenge in Indonesia. The online training model was chosen based on adults' ability to manage their own learning, and the lowest possible cost for learning utilities and travel expenses. The online training was provided voluntarily, without charge, and anyone was eligible to participate based on their personal need for the knowledge, skill, and behaviour through the training provided. This study also employed the Kirkpatrick evaluation model to assess the training program. There are three questions addressed in this study:

- i) What are the purposes of learners in registering for the in-demand online training?
- ii) How did learners respond toward the fully online in-demand skill training using the Kirkpatrick Reaction Level assessment?
- iii) What are the criteria for improving training learners' learning experiences?

The implication the study has the potential to inform the non-formal education sector, particularly in technology and job training.

2. Method

2.1 Research Instrument

There were two instruments utilized within the study, namely the registration form and the feedback survey. Table 1 is shown the list of questions inquired within the study and gives an ID for each item. First, the registration form was developed to obtain the demographic information (name, age, and occupation), and the main aspiration and expectation of learners in registering for online training. The registration form is given the ID of the Pre-Questionnaire (PQ-number). Second, the feedback survey was constructed to obtain the reaction of learners in completing the training session. The feedback survey was composed of a five-point Likert scale for rating-scale item questions, and open-ended answers to provide a more detailed response from the learners. The feedback survey has the ID Feedback-Questionnaire (FQ-number).

Table 1 - List of questions utilized in the study

ID	Question	Type
PQ-1	Learner' purposes in enrolling to training course	Open-ended
PQ-2	Learner' expectation in registering to training course	Open-ended
FQ-1	Enjoyment of the course	Rating Scale
FQ-2	Explanation of the mentor	Rating Scale
FQ-3	Appropriateness of course materials to learner needs	Rating Scale
FQ-4	Course completion in meeting learner expectation	Close-ended
FQ-5	Knowledge gain of learner	Close-ended
FQ-6	Ability in recalling course' materials	Open-ended
FQ-7	Suggestion for better learning experience	Open-ended
FQ-8	Topic requested for future course	Open-ended

2.2 Training Context

This study examined the most in-demand jobs in Indonesia using content analysis of online hiring portals, recruitments, and vacancies. In Indonesia, the most widespread job portals are linkedin (<https://www.linkedin.com/>), glints (<https://glints.com/>), job street (<https://www.jobstreet.co.id/>), and karircom (<https://www.karircom/>). Finally, after the analysis of prevalent job portals, this study revealed that User Interface and User Experience (UI/UX) designers and Digital Marketing skills are in high-demand jobs, alongside data analysts, project managers, and application/web developers. Prior to the development of training, an informal interview with senior UI/UX designers and Digital Marketing officers was conducted. Based on the findings of the interviews, this study contends that the skills of UI/UX Designers and Digital Marketing are in demand in the current Indonesian job market. However, those skills were not critically delivered in university formal education settings, and there is no requirement for diplomas in applying for the job. Thus, this study attempted to develop a fully online training using skill-based training of the Indonesian in-demand job market by collaborating with a learning platform-based institution that agreed to develop an instructional environment that capable of bridging the in-demand skill in the real professional industry. Thus, six topics were offered to the public, which was covered in two major courses of in-demand skills for Indonesia's employment, namely User Interface and User Experience (UI/UX) and Social Media Marketing (SMM). The training was conducted in three weeks from July 23 to August 7, 2022. The training course schedule is shown in Table 2. The Zoom platform was used for the online video conference. The training sessions were held entirely online and synchronously.

2.3 Population and Sample

The population of the study was generated from the listed registrants. The training program allowed anyone in the public to participate in the training sessions because there were no age or background restrictions on the application form.

Table 2 - Training courses based on topic

Training Topic	Date	Number of Registrant
Week 1		199
SMM 1: Starting Business on Instagram	July 23	72
UI/UX 1: Starting UI/UX Career	July 24	127
Week 2		58
SMM 2: Content Marketing on Instagram	July 30	33
UI/UX 2: Apple Mobile UI Design	July 31	25
Week 3		177
SMM 3: Copywriting	August 6	101
UI/UX 3: User Research	August 7	76

According to Table 2, a total of 434 registrants completed the registration form. The registrant distribution is explained in Table 3. Female registrants (63.36%) outperformed men. According to age categories, school-age registrants (15-22 years old, 63.36%) were the most prevalent. Remarkably, most registrants were university students (61.25%) and employees (15.44%). Missing data could be found in age and occupation characteristics, it is included for registrants who did not desire to enclose the demographic information.

Table 3 - Descriptive statistics of registrant's demographic (N=434)

Characteristics	Description	<i>n</i>	%
Gender	Male	159	36.64
	Female	275	63.36
Age	15-22	275	63.36
	23-29	102	23.50
	29-34	22	5.07
	Above 35	16	3.69
	Missing	19	4.38
Occupation	University Student	267	61.25
	Employee	67	15.44
	Fresh Graduate	21	4.84
	Student	18	4.15
	Entrepreneur	17	3.92
	Educator	7	1.61
	Missing	37	8.53

Of the 434 who fulfilled the registration form, just under half joined and completed the online training roughly. The training organizer was unable to calculate the precise number of total learners who attended the session, as the participants might not finish the session, was unpunctual, or had some internet connection problems. However, the feedback survey response rate was 34.79%, with only a few participants ($n=151$) able to complete the session and agreed to submit the feedback survey. Thus, the sample of the study employs a total of 151 learners from six topics, as detailed shown in Fig. 2.

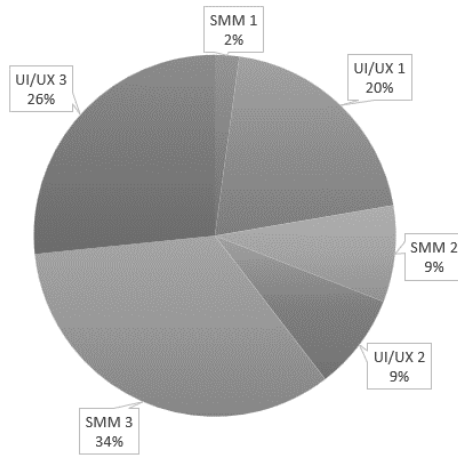


Fig. 2 - Percentages of learners based on training topic

2.4 Data Analysis Procedures

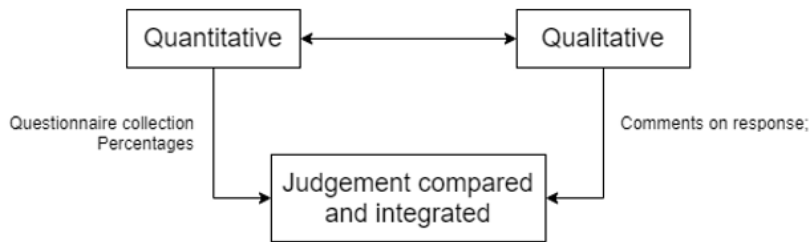


Fig. 3 - Concurrent triangulation method

Data was collected through the online questionnaire platform for both PQ and FQ. It is important to note that all responses were carefully translated from Bahasa Indonesia to English for study purposes. Following the data collection procedure, the evidence gathered was carefully analysed. The data analysis procedure was carried out using the concurrent triangulation method. The evaluation report framework of analysing the data shown in Fig. 3. Creswell and Clark (2007) have already noted concurrent timing in the triangulation method intended to execute the quantitative and qualitative evidence in a single time. This method was chosen because it is one of the most feasible ways of interpreting the judgment given the limited number of samples. As a result, the data collection of quantitative including the mean and percentages of the questionnaire, as well as the responses extracted from comments and open-ended questionnaires were gradually interpreted. The final judgement includes a comparison of those data dimensions and is expected to complement one another.

3. Results and Discussion

This section is divided into three sub-sections which correspond to each research question.

3.1 Learners' Purposes in The Online Training

The following section displays basic descriptive statistics that correspond to registrants' responses on the registration form. This analysis received 434 responses. However, due to the internet connection and the learners' ability to complete the training, the exact number of learners who have joined the training is unknown. The data obtained is derived from an open-ended questionnaire about the registrant's real aspiration for enrolling in online training.

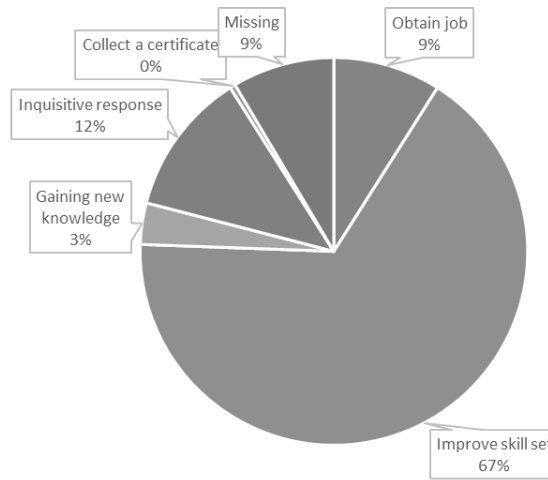


Fig. 4 - Registrant’s purpose in enrolling on the online training

There are six purposes identified in understanding the learner, which is detailed in Fig. 4. There was a significant percentage in the aspiration of learners to improve their skill set ($n=289$, 67%) through registering in the skill-based online training. Interestingly, there were 52 registrants (approximately 12%) reported that they joined the online training in response to curiosity and inquisitive because of the training' topic offered. The result also revealed that the desire of participants in obtaining a job ($n=39$, 9%) and gain knowledge ($n=15$, 3%) also become the consideration of the public in registering for the training. A small minority of two registrants admitted their reason only to get the training certificate. This intention was justifiable as the training environment in Indonesia always put the benefit of earning certificates for their trainees. Moreover, university students must prove their collection of certificates as the graduation requirement.

The significant finding in investigating the purpose of the public in registering for online training indicated that the registrants wished to improve their skill set to gain knowledge and have a foundation to start a career after completing the training session. This finding supports the study's demographic information, which stated that most participants were university students. This finding may work well with Nambiar et al. (2019), which will alleviate the risk of Indonesian society overload if the young generation is unable to find valuable employment due to low skill levels. Thus, there is an urgent need for higher education institutions to respond to students' emerging skills through new pedagogical design (Fernández-Sánchez & Silva-Quiroz, 2021).

Remarkably, a significant number of employees who participated in the online training raised a new question. According to Green (2016), workforce training is already available within the institution, compared to the number of training provided by educational institutions and other training providers. Typically, organized training sessions have been provided for each new employee prior to their real-world experience as a worker, which is known as on-the-job training (OJT) (World Bank, 2020). However, the topic offered in this study was indeed in-demand skills that parallel the demand of the current industry. Were these employees seeking new knowledge to equip them to work more effectively, or were they preparing themselves to obtain a new job based on the training' topic offered? Further analysis of investigating employees' purpose in enrolling on online training outside of their organization is interesting to be conducted.

3.2 Reaction to The Online Training

The current section assesses learners' overall satisfaction with the completion of an online training program. The analysis describes the data collection of feedback questionnaire (FQ) items using a Likert scale. Since the feedback survey was distributed at the end of the training program, only learners who completed the training and agreed to fill out the FQ ($n=151$) were counted. Figure 5 shows three sub-sections for each indicator of reaction in this study namely learner enjoyment, need appropriateness, and mentor ability.

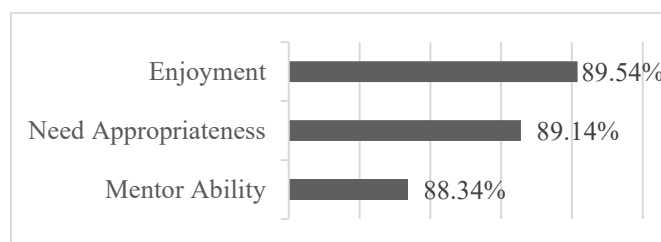


Fig. 5 - Percentage of data extraction from each indicator

3.2.1 Learner Enjoyment

This section disclosed the degree of learner enjoyment in training actualization. Learner enjoyment referred to the learner's immediate reaction after the training was completed. The trainee's reaction is regarded as more crucial in an online environment because it may have a higher impact on their learning outcome, and their enjoyment may enhance the training content received Long, DuBois, and Faley (2008). The indicator of learner enjoyment is measured using a scale of 1 indicating "Not Really" and 5 indicating "Very Much", which shows a relatively general training enjoyment of learner. The results confirmed that learners had the most positive reaction to completing the training with an average of 4.48 (89.54%). Table 4 details the responses of learners to the FQ1 item.

Table 4 - Learner enjoyment in the feedback questionnaire

Result	<i>n</i>	%
Not at all	1	0.7
Not really	1	0.7
Undecided	7	4.6
Somewhat	58	38.4
Very Much	84	55.6
Total	151	100,00

Over half of learners reported that they perceived the learning experience to be very enjoyable. These outcomes are bound to happen since the training organizer implemented several strategies prior to, during, and after post-training events. Table 5 details the efforts and strategies conducted by the training organizer to bring out the most outstanding learning experience for the learners.

Table 5 - Efforts and strategies implemented to enhance the learning experience

Activities	Effort and strategies implemented
Pre-training	<ol style="list-style-type: none"> 1. Mentors were provided with onboarding activities to provide them with the pedagogical knowledge 2. Developing succinct learning content materials and collaborating with the expert mentors as the Subject Matter Expert (SMEs) 3. Clearly defined training objectives for learners 4. Accessible registration form and without charge 5. Online meeting classroom and related information were provided before the training
During training	<ol style="list-style-type: none"> 1. Interactive live class under 120 mins (or 2 hours) between learner-mentor and between peers. 2. Live discussion with experienced mentors while employing multimedia interactivity in the videoconference platform 3. Analysed real-world and real-industry case studies during the discussion
Post-training	<ol style="list-style-type: none"> 1. Learners were unified in a form of online learning community based on the training topic 2. Learners are provided with communication to the experienced mentors through asynchronous communication platform 3. Mentors were given constructive feedbacks for later courses

3.2.2 Need Appropriateness

Training is a learning activity that allows participants to gain knowledge, skills, and behaviour that they would not have before. The goal of training has always been to develop very specific skills that could be used immediately by its workforce (Smith and Ragan, 2007). A participant must be intrigued by the training program, before their registration process eventually. Thus, there is always a determined need that is addressed by the participant, which forced them to acquire specific skills through training. This section addressed the learners' need for appropriateness in completing the training program. The descriptive analysis compared the expectations and reactions of the learners based on the training materials and procedures.

Table 6 - Need appropriateness in feedback questionnaire

Result	<i>n</i>	%
Inappropriate	1	0.7
Slightly inappropriate	1	0.7
Neutral	14	9.3
Slightly appropriate	47	31.1
Appropriate	88	58.3
Total	151	100,00

On item FQ4, learners rated the training course completion in meeting their expectations with the close-ended questionnaire indicating "Yes" or "No". A strong percentage of 98.01% ($n=148$) learners stated that the training program able to meet their expectations. Moreover, the detailed perceived need appropriateness was investigated through the FQ-3 shown in Table 6. Over half of the learners ($n=88$, 58.3%) agreed that the training program was very appropriate to their needs. Overall, the results confirmed that the training program able to meet the learner's needs and expectations of 89.14% ($M=4.46$). This result confirms Long, DuBois, and Faley (2008) that highlighted online training courses were more clear and tailored to the needs of learners than conventional courses.

3.2.3 Mentor Ability

The mentor is recognized as a significant indicator of learner fulfilment because the learners spent the entire training program with the mentors. The capability of mentors, the knowledge transfer and the learning methods given are significant in assessing the mentors. The FQ2 item investigated the clarity of mentor explanation when it came to regulating training courses. Learners responded positively to the mentor's ability to train the course session, with an average score of 4.41 (88.34%). Table 7 summarized the responses to the FQ2 item.

Table 7 - Mentor explanation based on the learner's reaction

Result	<i>n</i>	%
Terrible	1	0.7
Not that good	1	0.7
Neutral	17	11.3
Good	47	31.1
Excellent	85	56.3
Total	151	100,00

Mentors were rated highly by more than half of the learners ($n=85$, 56.3%) for their ability to administer the course session. This study included six mentors who were assigned to six different topic courses. All mentors were chosen for their background expertise in the training topic. Even though they are all industry experts and employees, most mentors were not prepared with pedagogical knowledge prior to their session. The training organizer prepared "Mentor Onboarding" program to provide them with didactic knowledge. Furthermore, the mentors were in charge of providing industry input and organizing training content material before its launch. Long et al. (2008) disclosed even the most excellent training content will be difficult to endure in the hand of poor mentors, and expert mentors could turn the poor training content into something valuable to understand. Thus, the mentor's ability to convey training content and manage the course is regarded as important in retaining a training program.

3.3 Improvement of Training Experience

This section used qualitative analysis to obtain a holistic perspective on learner' reactions in completing the online training based on FQ5 until FQ8 questionnaire items. There were 154 responses selected to analysed in this study. Table 8 shows the codes extracted from the learners' responses. There were five codes yielded namely knowledge, technical, experience, content, and mentor. Each code represents a fruit indicator theme to enhance the better learning experience, particularly in nonformal education and training courses.

Table 8 - Excerpt of learner’ responses in feedback questionnaire

Initial Code	Definition	%
Knowledge	Instances in the ability of learners to recall information gained and pertained the topics during course	49.35
Technical	Instances the eagerness of learners to acquire technical information refers to the course	13.64
Experience	Instances of learners' suggestions to improve their learning experiences	17.53
Content	Instances in which learners acknowledge the course content materials	11.04
Mentor	Instances in learners acknowledge the mentor' performance throughout the course	8.44

Training topic information was provided to entice the public to participate in the training. The degree of intention in joining the training refers to the amount of effort the registrant intends to expend during the course (Long et al., 2008). Most registrants stated that they were motivated to improve their skills (67%) and gain new knowledge (3%). According to the Kirkpatrick Four-Level Evaluation, the second level is related to the learning level to measure the transfer of information that occurred during the training. Although the study did not specifically investigate learning level, FQ-5 and FQ-6 items examined the learners' awareness in terms of their knowledge gained.

The highest percentage of learners able to recall their knowledge gained through open-ended questionnaires was 49.35%. Importantly, students were able to demonstrate knowledge gained from major courses in UI/UX and SMM:

- “I’ve learned more about UI/UX Design in-depth and also know how to start in UI/UX Developing :)” (Learner of UI/UX course)
- “As a beginner, I’ve learned a lot about how to write copy for websites and social media posts. It is a good choice of material and an eye-catching presentation. There is a piece of good information, details, and examples provided. I can catch the ideas of the AIDA formula easily, but still, I need to improve and try it by myself to see the result.” (Learner of SMM course)
- “Well, I have learned a very important thing about copywriting. I know about this type of copywriting and even tips and tricks. It makes me want to learn more”. (Learner of SMM course)

As a result, this study highlighted the importance of selecting an appropriate a training topic when arranging a training program. Significantly, the needs of the participants have always been a noteworthy indicator that distinguishes a training program from formal education. Learners were expected to use the knowledge they had gained immediately in their job-search journey. This concurs well with a workforce environment that demands employees to have broad-based knowledge in order to perform specific task (Bakshi et al., 2017). The most common skill referred to in publications that meet the current occupational and digital era is the technological mastery (García-Pérez et al., 2021). Importantly, this study extracted a code of technical knowledge, prompting a training program to incorporate a hands-on problem or project-based learning model using the technology during the session.

- “I learned about the technical details of Instagram posting, especially from a business point of view. I also learned how to make an interesting Instagram post and how to come up with ideas for an Instagram post.” (Learner of SMM course)
- “I learned about the definition of UI/UX, tools, and about portfolio and other basic knowledge.” (Learner of UI/UX course)
- “I learned about the social media market of Instagram, given the step-by-step of doing digital marketing through Instagram.” (Learner of SMM course)

This finding supports learners' satisfaction with the knowledge they have gained through training. Covered topics pertaining to the knowledge implication of the job industry are most welcomed by training participants. This study believes that learners' ability to assert training knowledge indicated the amount of transferred information that managed to gain. Following knowledge and technical, the following code refers to the learning experience. The reactions and suggestions were derived from the FQ-7 responses ($n=27$; 17.53%). A learner confirmed that the session was able to provide him or her with relevant experiences.

- “The class is very interactive and well explained. I quite understand about UX research method and the study case.” (Learner of UI/UX course)

Several recommendations provided by learners to engage in a better learning experience include network connection, camera regulation, and the idea of gamification.

- “The network connection is better prepared before starting the event.” (Learner of SMM course)
- “...suggestion for participants and mentor to open their camera when the connection allows...” (Learner of UI/UX course)
- “Please consider a quiz or giveaway that might be interesting for the participant” (Learner of SMM course)
- “Interactive sessions such as mini-games and small prize giveaways to engage the class.” (Learner of UI/UX course)

These results have been found to be significant, considering the training course is much different from the formal education that is limited with space, monotonous learning methods and high utility costs. Nonetheless, the interruption possibilities in online training environments also spark an interest to be studied. There are a few triggers that cause interruptions during online training. These include technological issues such as network connectivity, and interruptions from supervisors, family, or friends. The most significant interruption was also caused by self-regulatory and effort in managing the training session (Federman, 2019). Thus, effort in enhancing the learning experience is significant when preparing a training program to ensure maximum knowledge transfer.

Another indicator that contributes to the enhancement of the learning experience is the content or learning materials provided during the training. Given this study was free-of-charge training, the training organizer only provided a certificate of participation after the training was completed. Training material content such as live recordings, mentor slides and other resources were not distributed to the learners. However, several positive reactions were received from the questionnaire:

- “Keep organizing really good classes like this, all the material and knowledge from the mentor is a real one...” (Learner of UI/UX course)
- “The material is very helpful and interesting.” (Learner of SMM Course)
- “The training content able to include the real work through the knowledge presented.” (Learner of UI/UX course)
- “The material provided is very good, thank you for the material which is very useful.” (Learner of UI/UX course)

These results confirmed that training objectives that were directly related to the industry through knowledge, technical know-how, and brief learning materials were gladly received by the learners. On the other hand, the selection of mentors who give lectures and organize the course is also considered significant. The following excerpts were obtained from the questionnaire pertained to the reaction of learners based on the mentor's performance:

- “The mentor’s explanation was very easy to understand...” (Learner of UI/UX course)
- “Wish to meet more mentors who are willing to share such as this.” (Learner of SMM Course)
- “Please do more things like this with professional speakers.” (Learner of SMM Course)



Fig. 5 - Highly requested training topic using world cloud

Learners were asked to fulfil their topic request for future training topic on FQ-8 at the very end of the feedback questionnaire. Fig. 5 illustrates that the most frequently requested topics were still related to high-demand jobs, specifically IT-related hard skills. The most popular requests were for UI/UX, data science, personal branding, and graphical design. This outcome may influence future online skill-based training to meet training needs based on the most requested training topic.

4. Conclusion

Much effort has been undertaken to mitigate the unemployment rate in Indonesia by looking through government and creative industries. The fact that many Indonesian youth were keen to gain new knowledge proven by their participation in this study was an absolute promise. Furthermore, university students were the most prevalent in-demand skill training participants, shedding light on the reconfiguration of formal education. Based on the reaction result, the learners preferred training topics that were very close to the real industry and technical knowledge that was applicable to the current industry. Furthermore, this study was able to generate the most in-demand skills in the current Indonesian job market, namely User Interface and User Experience (UI/UX) Design and Digital Marketing.

Based on an investigation of the learner's purpose for enrolling in training, it was discovered that the learner's primary goal was to improve their skill set. A skill is regarded as an investment that has enabled the learner to enter the job market in the twenty-first century. However, transferable skills that are in demand in the workplace are typically offered in learning settings outside of the formal education context. This research aims to address the establishment of in-demand skill training in an online setting to provide skills, knowledge, and competencies that are in line with current industry demands. The learners' reactions were deemed positive because of the training topics and procedures provided. The learners lauded the mentor selection and development of concise and practical training content.

The current study has revealed some implications of conducting training in online contexts. Some recommendations are made for the continuation of a similar future program. Furthermore, because this study only focused on the perspectives of the participants, future studies may invite other program stakeholders such as mentors, training organizers, and higher educational institutions to contribute to the study. The objectives of the future study should be to provide a comprehensive overview of the training program and to evaluate it to inform better practice in the field of non-formal education.

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