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Flexible Learning Using ANATEKS Flexi e-Content Medium: An Innovative Effort in Times of Covid-19 Pandemic

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***Abstract*—Learning the Technical Analysis subject for the part-time students during the Covid-19 pandemic era is definitely challenging. The online learning method quickly outpaced the conventional physical face to face learning drastically. The part-time students attended a much less lecture session per semester for the same course coverage and course assessments as opposed to their full-time counterpart. Apart from their hard work and intelligence, additional flexible learning medium must also be in place to complement their study process so that at the end, the learning outcome is achieved. Guided by the six phases e-content development method adopted from Nachimuthu (2012) [1], we propose an e-content educational learning platform named Anateks Flexi (AF) which is developed to complement the existing learning method for the part-time students. Using the common and user-friendly technology, students have access to the recorded Google Meet class sessions for easy and repeatable viewing. Apart from that, additional e-content learning materials via Anateks platform namely website, Youtube and Google accounts is also made available to complement the scheduled class sessions. The e-content material includes eLecture video collection, introductory educational videos, eSlides, eSeminars and eCharting. Anateks Flexi's e-content platform suits the part-time students well as student is able to organize their busy time with the learning part at their convenience. At the end, Anateks Flexi tries to make the part-time students at par with the full-time students in terms of learning experience within the constraints of part-time online learning course during the Covid-19 pandemic.**

Keywords- e-content, flexible learners, ANATEKS, technical analysis, charting

I. INTRODUCTION

Learning the Technical Analysis subject for the part-time students during the Covid-19 pandemic era is definitely challenging. The online learning method quickly outpaced the conventional physical face to face learning drastically. The terms of name, distance learning is often used as a synonym with online learning. The online learning is viewed as a much safer mode of delivery during the Covid-19 pandemic as physical gathering is not encourage given the risk of disease spread. It looks like online teaching and learning is no more an option, but a necessity [2]. Interestingly, e-learning is then associated with distance and online learning given the restrictions on face-to-face meeting.

e-learning is associated with easy accessibility, affordable, flexibility and lifelong learning. Combining e-learning with face-to-face lectures produces another learning method named blended learning. Apart from the conventional full-time students, education is also made available to people who wanted to study but have other commitment especially their work commitment. This is where the part-time student adopting the blended learning method was introduced. Distance education on the other hand is a computer-based teaching method in which the interaction between students and education practitioners is provided from a certain center in cases where classroom education cannot be performed due to limitations in general education and training process [3]. This is exactly the case the Covid-19 pandemic crisis as the conventional face-to-face lectures was forced to go online to cater for the crisis. Distance education is considered as a promising innovation with its flexible learning environments [4].

This paper describes an example on how an innovative effort using e-content medium can be applied in the online and distance learning environment in times of Covid-19 pandemic. In this study, the part-time students adopting the blended learning method has the flexibility to learn online at a distance however has difficulty to attend the physical on-campus normal class lectures. Hence, the more appropriate option is the online lectures. These students attended a much less lecture session per semester for the same course coverage and course assessments as opposed to their full-time counterpart. Interaction with peers and lecturer is now limited to the online class session and the university online learning management system in contrast with the physical classes prior to Covid-19 pandemic. Apart from their hard work and intelligence, additional flexible learning medium must be in place to complement their study process so that at the end, the learning outcome is achieved. One option is the e-content methodology that can assist learners in the learning process.

Hence, the purpose of this empirical study is to gauge the opinion of the users of an e-content project named Anateks Flexi. It is preliminary study in nature based on a pilot test study conducted on a group of part-time students in a public university. Anateks Flexi was developed to cater for the part-time students within the online and distance learning environment. Feedback from the users is critical for further development of this innovative learning tools.

II. MATERIALS

A. e-Content Learning Methodology and Developments

e-content includes all kinds of content created and delivered through various electronic media from old media such as print and radio to the increasingly sophisticated electronic tools with combination of sounds, images and text. e-content requires huge amounts of creativity both at 'information' level as well as the 'technology' level [1]. e-content increases convenience and accessibility via internet devices such as smart phones in a fun, very cheap and time friendly environment [5].

The e-content development method for this project is adopted from Nachimuthu (2012) six phases development namely the analysis phase, design phase, development phase, testing phase, implementation phase and the evaluation phase. The project was designed accordingly and produce an e-content educational learning platform named Anateks Flexi (AF) which is developed to complement the existing learning method for the flexible learning students.

B. The Course

The Introduction to Technical Analysis course is one of the core subject for the finance major. It is designed to equip the students with an alternative stock investment technique called Technical Analysis. In this 14-weeks semester, students are exposed to the concepts and application of technical analysis, the various technical indicators and investment decision using technical tool as depicted in Table 1. At the end of the course, student must be able to illustrate various types of investment decisions using technical analysis tools and build a hands-on skills through technical analysis software.

Table 1. FIN555 topics, availability, e-content types and accessibility medium.

	Technical Analysis Topic	***Lecture Videos***	***Seminar Videos***	***Slides***	***Educational Videos***	***Charting Videos***
1	Introduction	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
2	Support & resistance	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
3	Trendlines	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
4	Volume	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
5	Moving Average	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MOV/Youtube	✓ MP4/GDrive
6	Envelopes	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MOV/Youtube	✓ MP4/GDrive
7	Bollinger Band	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
8	Rate of Change (ROC)	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
9	Relative Strength Index	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
10	MA Convergence	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ MP4/Youtube	✓ MP4/GDrive
11	Stochastic	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	✓ GOM/Youtube	✓ MP4/GDrive
12	Charting Basic	✓ MP4/GDrive	✓ MP4/GDrive	✓ Pdf /Website	-	✓ MP4/GDrive

Note: All materials are available via ANATEKS website and linked to the respective medium such as Google Drive, Youtube and the web itself.

C. *Anateks Flexi*

Anateks Flexi is an extension of the previous e-content innovation named Anateks Econ which comprise a series of educational videos to help students and public beginners' learners in technical analysis subject. The objective is to assist part-time students in their undergraduate study in the public university. The innovation suits the working-class part-time students' learning process as they are able to organize their busy time schedule with the learning part at their convenience. In this improved version, focus is directed to the part-time students who may have difficulties in learning in the era of Covid-19 where online learning is practiced as oppose to the conventional face to face and physical learning. Apart from the videos, lectures series and handful of other assistance in the form of e-content is made available to students. Materials can be assessed through Anatek Flexi website by using laptop or smart phones at the users' convenience. This innovation stimulates learners to get involved with learning in a flexible way. The structure of Anateks Flexi is as demonstrated in Figure 1.

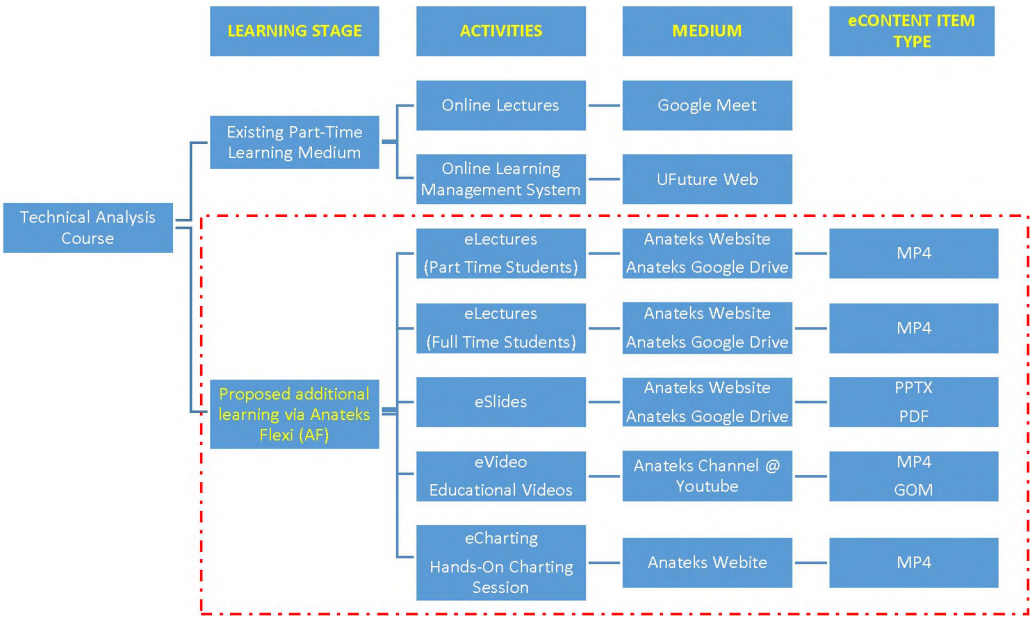

Fig. 1. ANATEKS Flexil learning flow

III. METHODS

A. *Methodology*

This is a quantitative research based on a survey on a population of 15 samples being the students of a Technical Analysis course in a public institution of higher learning. The students are a part-time student who is directly involved in this Anateks Flexi project. This research employs the descriptive analysis technique to gauge the usability of Anateks Flexi in flexible learning students learning process. Data were collected using an online survey method via Google Forms platform.

B. *Pilot Test*

A pilot test was undertaken to gauge the feedback on the website, specifically the e-content materials within the website. The group consisting of 17 students have undergone a 14-week semester. Adopting the flexible learning method, students have to attend 5 lecture sessions in the form of seminars equivalent to 10 hours online lecture time and manage the online Learning Management System (LMS) as opposed to the previously conducted face to face session before the Covid-19 pandemic. Materials were shared with these students via Anateks Flexi website periodically. Major materials were the recorded online classes for the full-time students which was made available so that these part-time students have the advantage of learning the 56 hours class lectures and charting sessions at their convenience. Practical and hands-on session is mandatory and was also recorded for the students revision later on. Upon completion of the course, each student was asked to complete a survey on feedback of using the e-content materials along with the websites. Structured questions were developed in three parts i.e Flexible Learning@ Online, Course Delivery and Anateks Flexi Features.

IV. RESULTS AND FINDINGS

A. *Demographic Profiles*

The respondents, a 100% Malaysian nationality, comprises of 47.1% male and 52.9% female. A bigger chunk of the respondents (52.9%) aged more than 25 years old followed by 47.1% in the range of 23 to 25 years of age. The situation reflects the working-class level that enrolled in the part time course. In terms of years of study, 47.1% is in the 3rd year, 17.6% each in the 2nd, 4th year more than 5th year. All the students have completed the Technical Analysis subject.

B. *Flexible Learning@ Online*

23.5% and 17.6% of the respondents strongly agrees and agrees respectively that the Technical Analysis subject is very challenging as a flexible learner while 52.9% is neutral and another 5.9% strongly disagree. Majority of the respondent agree that online lectures via Google Meet is not sufficient: 41.2% strongly agrees, 29.4% agrees, 11.8% is neutral, 5.9% disagree and 11.8% strongly disagree.

C. Course Delivery

Majority of the respondents or 76.5% strongly agrees that learning TA via lectures is interesting while 82.4% strongly agrees learning TA using software is interesting. Nevertheless, a mixed view was found in terms of using books as a medium to learn TA where 23.5% strongly agrees, 29.4% agrees while 35.3% neutral and 11.8% disagree. On the other hand, 76.5% strongly agree while 11.8% agrees that learning TA using videos is interesting.

D. Anateks Flexi Features

Overall, a total 88.3% of the respondent in this pilot study (comprising of 76.5% strongly agrees and 11.8% agrees) believes Anateks Flexi e-learning platform helps in learning the Technical Analysis subject.

V. CONCLUSIONS

Anateks Flexi (AF) is part of an innovative effort using e-content platform that assists part-time students in their undergraduate study in the public university. Such noble effort add values to these students as the e-content platform suits the part-time students learning process. With AF, the students, majority of them are working class people are able to organize their busy time with the learning part at their convenience. This innovation stimulates learners to get involved with learning in a flexible way. At the end, Anateks Flexi tries to make the part-time students at par with the full-time students in terms of learning experience within the constraints of part-time online learning course. Overall, a total 88.3% of the respondent in this pilot study (comprising of 76.5% strongly agrees and 11.8% agrees) is of the opinion that Anateks Flexi e-learning platform helps in learning the Technical Analysis subject. Apart from that, the website is also assessable to the public making it as an alternative platform for technical analysis beginners to learn. Anateks Flexi contribution at this instance, although minor, is significant in support of the education industry struggle in times of Covid-19 crisis.

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