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DISTRICT 4.0: A Self-Learning and Peer-Learning Website for Students

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ABSTRACT

Students strive for success and never stop trying their best to gain more knowledge day by day. A way of gaining knowledge is attending to lectures, and tutorial classes as scheduled. But there are more than one way that are proved to be more effective to students which are self-learning and peer learning. Thus, this paper explains on the effectiveness of self-learning and peer-learning as the alternative to the conventional way of learning. Peer learning occurs among peers from similar social groupings, who are not professional teachers, helping each other to learn and in doing so, learning themselves. However, it is not easy to find the right and perfect peers. Hence to overcome this problem, an educational website consists of several features including study partner finder, academic videos and notes is created. This paper examines the usefulness of this educational website as it is created to serve as a platform to the students to find their perfect study partner and to reach their alumnus with just few simple clicks. In addition, the website also functions as a one-stop centre for the students to access video lectures, audio books, and lecture notes shared by their peers. Furthermore, this paper also elaborates on how the website can generate revenues from marketing advertisement and YouTube posting. Lastly, this paper proposes recommendations for the website as the way forward.

Keywords: Self-learning; peer-learning; educational website; online learning

1. INTRODUCTION

Hermann Ebbinghaus, a German Psychologist who pioneered the experimental study of memory found that when no attempt is made to retain learning, information gathered is lost over time [1]. Further research supports Ebbinghaus' claim as research findings show that when not applied, learners forget over half of what they "learnt" within an hour, and over 75% of information within a week of the learning intervention. With learner attention spans being incredibly short and information overload causing learners to disconnect, traditional classroom is perceived not to be effective enough.

Peer-learning and self-learning provide alternative to learning in traditional classroom. Students learn a great deal by explaining their ideas to others and by participating in activities in which they can learn from their peers. They develop skills in organizing and planning learning activities, working collaboratively with others, giving and receiving feedback and evaluating their own learning. Peer learning

is becoming an increasingly important part of many courses, and it is being used in a variety of contexts and disciplines in many countries [2].

Based on research, peer learning offers myriad of advantages. Firstly, peer learning is established on experiential learning which then guide the betterment of the learner's cognitive and affective development throughout their studies [3]. Secondly, peer learning can be carried out by trying various ways of learning in order to acquire pedagogy strategies and to accommodate new learning techniques to each and every students. Thirdly, when students cooperate on their subject learning, they can unfold the understanding on why the options they take must be made in the best context as they shall be responsible in managing their own learning by doing active academic engagement [4]. Next, peer learning supports the integration of students both academically and socially in the same institution to achieve the objective of empowering peer support and social engagement by creating one learning community [5]. Peer learning guarantees that learners can evolve analytical behaviour while still remain to be achievement-oriented and results driven [6].

On the other note, as for self-learning, it will retain students from not being afraid of failure and being isolated since they will not be exposed to other learning styles which differ in their speed and comprehension, several of them are too quick and only applicable for smart students [7]. Moreover, self-learning lead learners to avoid over-reliance in a studying period because such attitude will undermine their own intelligence in engaging future challenges and risks [8]. Furthermore, self-learning also ceases the likelihood of learners need to consider the differences of ideology and views that form part of the challenge of studying in groups [9]. Lastly, self-learning promote personal growth which stems from the individualistic values but still managed to to grasp the real meaning of learning, rather than by searching different methods of learning [10].

In studying these findings, we recognised that through the power of technology, we could widen the appeal of peer-learning and self-learning and make its benefits accessible to everyone to create a better balance in students' learning experiences by creating an educational website called District 4.0.

2. INNOVATION DEVELOPMENT

The District 4.0 website consists of several significance and essential features that make it a complete one-stop centre for the students to immerse into the fun of learning online. As the students themselves, the developers of the website have listed down a number of features that they think are crucial for the website to achieve targeted goals. These are the features:

StudyBuddy

StudyBuddy is a feature in District 4.0 website which helps the students to seek their preferred study mates among them by just filling up the required details such as the subjects that they excel and the subjects that they still need enhancement by the help of other students. The participating students may instantly view an online spreadsheet beside the StudyBuddy registration form button in order for them to pick their study mates based on their performance in academics which recorded on the list.

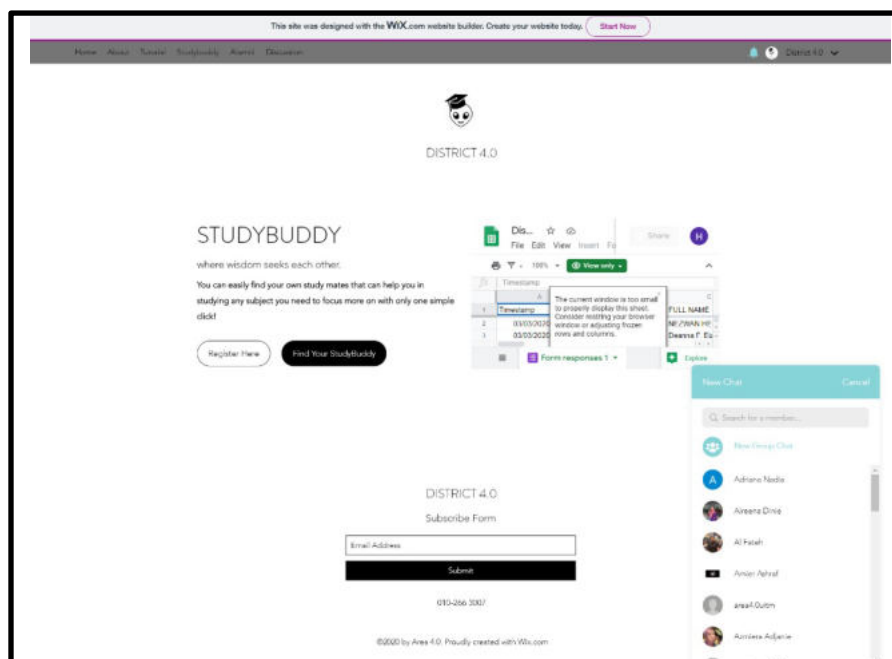


Figure 1: StudyBuddy feature

Notes

Making and reading notes are one of the most effective ways in helping students with their studies. However, students often find it difficult to make their own notes most probably due to the lack of time that they have. Thus, a section that is equipped with notes is incorporated into the website as one of its features. In this section, the notes published are a hundred percent made by students themselves, so the concept of peer learning is still being uphold. By having this feature, students can just browse through the notes published in the website and download it for future reference. Therefore, students do not need to fret about not being able to make notes as they can find it easily in District 4.0 website.

Academic Videos

Most students show tremendous results in their studies when they are actively engaging with their peers. Students find it easier to grasp on the information explained by another fellow students. As a result, in District 4.0 website, we included a section in the website that is based on tutorial and learning videos. For the videos, the developers with the help of lecturers will hand picked the students that will be recorded to present certain topics or subjects. Hence, the videos are all explained and taught by students themselves. By doing so, students are able to learn wherever and whenever they want with just a click away.

Discussion

Many students throughout their years of studies require constant engagement in the form of questions and discussions. Through these engagements, students can deepen their understanding on certain subjects while identifying any problems. In response, we created a platform that allows students to have discussions

or inquiries regarding their academics. Students can post topics to which others can reply to it. The topics and discussions posted will be ensured for relevancy and suitable for all audience.

Alumni

The last feature is a section that connects current pre-university students with students in degree programs from various universities using online platforms such as Instagram and email. Students can consult and ask questions to prepare themselves for their upcoming degree studies. Students can gain useful insight into the undergraduate life by receiving valuable tips and advice from their seniors.

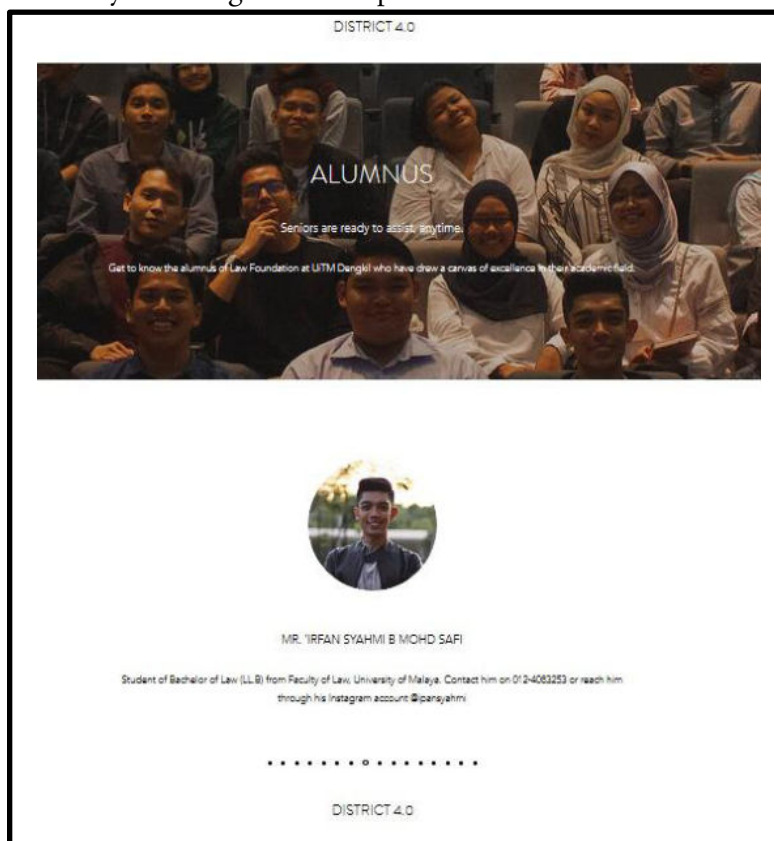


Figure 2: Alumni feature

3. COMMERCIAL POTENTIAL

Various peer teaching programs have cropped up at universities around the world in the past few decades, promoting the notion of peer-assisted learning. Nearly every institute of higher education in the world provides peer tutoring opportunities for struggling students and teaching assistant positions for advanced students [10]. However, this innovative District 4.0 website is taking a step further where it offers virtual one-stop centre to get such opportunities. The feature of 'StudyBuddy' for example, makes the website unique in providing a platform for the students to find their perfect study partner with just few clicks.

It is to be highlighted that District 4.0 website was created not only to help students with their academics but to generate revenues as well. Advertising by way of affiliate marketing and YouTube posting are among the strategies on how such revenues can be obtained. In advertising by way of affiliate marketing, certain products will be promoted to the website's subscribers and viewers by providing a link that the viewers can click on to purchase the advertised products. Thus, split sale or commission through the selling of the product that was advertised will be procured.

As for the YouTube posting, all the learning videos from the website will be uploaded to the website's YouTube channel. The content will be promoted on social networks like Instagram and on the website as well. Therefore, when the number of the website's users increases, the number of views for the website's YouTube videos will accumulate as well in which revenue can be earned through advertisement. It is safe to say that the sustainability of the website is partially depending on such generated revenues.

4. CONCLUSION

The District 4.0 website is established with the intention to help students to utilize the usage of technology in education. It is interesting to note that even though the website is still a prototype, but it has caught the eyes of many including educator and students from other institutions during an innovation exhibition held in March 2020. Taking one of the feedbacks, converting the website into a mobile apps is one of future planning of this project. This is because, mobile apps have the ability to work offline. Although mobile apps might require internet connectivity to perform tasks, they can still offer basic content and functionality to users in offline mode. Another future planning is a collaboration with educators to add an additional feature to the website. This feature will add value to the website because the students will not only can reach their peers and alumnus, but also their educators in this one-stop centre website. In light of the ongoing situation with COVID-19, the website will definitely be one of the mediums for educators to carry out Open and Distance Learning (ODL) with the students. In conclusion, District 4.0 website makes self-learning and peer-learning possible for everyone in an effortlessly fun way. It is undeniable that this website is a solution to a better learning experience as the students are having more learning options as compared to conventional way of learning.

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