FOQUS (Focus And Quota Saver) Application for Effective Learning in Online and Digitalized Classroom (A Study Case in SDS Yayasan Pembangun Didikan Islam)

Hans Allen Gunawan, Tri Rasti Ulfa Tanjung, Abdillah Thoha, Akbar Gading Alfadli Harahap, and Mindy
Industrial Engineering Department
Universitas Sumatera Utara (USU)
Medan, 20155, Indonesia
hansallen@students.usu.ac.id

Meilita Tryana Sembiring
Industrial Engineering Department
Universitas Sumatera Utara (USU)
Medan, 20155, Indonesia
meilita_tryana@yahoo.co.id

Abstract
The world is affected by the COVID-19 pandemic. Indonesia is one of the affected countries. This led to a shift in doing our daily activities from the physical into digital in various industries, including education industries. The digital (online) activity must be done using gadget in teaching and learning process. Teachers and students used Zoom, Gmeet, Whatsapp, and other online platforms to interact with the students. However, students tend to lose their focus easily with this learning method. They have a habit of opening social media and games while studying. These apps are apps which consume student’s limited package data. Therefore, not only are they distracted by opening these applications, the student’s quota is also used ineffectively. FOQUS application is an application to block students from opening irrelevant applications during class. This application was made to reduce student’s data package consumption and help students in retaining their focus during online class. The implementation method starts from meetings and introductions to establish partnership with students, teachers, and authors in Yayasan Pembangun Didikan Islam (YPDI), application design and development, socialization to teachers and students, and application implementation in teaching and learning activities. Evaluation was carried out periodically during the implementation process. Application design and development activities were carried out for 2 months, socialization was carried out to 6A and 6B grade students and accompanying teachers, then the implementation was carried out 2 times, namely before and after using the FOQUS application. During implementation, it was found that many students wanted to open other applications while studying but could not successfully open them because they were already using the FOQUS application. At the end of each session, a post-test was conducted to students from each class. This study found that students who used the application saved 2.32% data package compared with students who don’t. The students score from each class increased. Class 6A average score increased from 61.2 to 64.4. Class 6B average score increased dramatically from 44.1 to 62.7. This result supports FOQUS application use might have an effect in supporting student’s retention on the lesson being taught. However, external factor (classroom condition) and internal factor (individual intelligence, habits) might also have an influence in the student’s class performance.

Keywords
pandemic, online, focus, quota, and application.

Acknowledgements
This paper has received funding from Indonesia’s Ministry of Education, Research, and Technology and in partnership with YPDI (Yayasan Pembangun Didikan Islam).

© IEOM Society International
Biographies

Hans Allen Gunawan is currently an undergraduate student at Industrial Engineering Department at Universitas Sumatera Utara (USU). He published his first paper with his lecturer titled Fulfilling Eucalyptus raw materials for pulp and paper production plants together with his department lecturer.

Tri Rasti Ulfa Tanjung is currently an undergraduate student at Industrial Engineering Department at Universitas Sumatera Utara (USU). She is active in joining scientific article and business plan competition. She has written a paper titled KUBIS (Snake Fruit Seed Cookies): Utilization of Snake Fruit Waste into High-Carbohydrate Cookies as a Source of Business Opportunities. She is currently joining a business plan competition with her proposal titled KUBIK (Kue Bawang Ikan Kembung).

Abdillah Thoha is currently an undergraduate student at Industrial Engineering Department at Universitas Sumatera Utara (USU). He published his first paper in product design titled Survei Pasar dari Perancangan Alat Cek Gula Darah Tanpa Jarum di Puskesmas XYZ.

Akbar Gading Alfadli Harahap is currently an undergraduate student at Industrial Engineering Department at Universitas Sumatera Utara (USU). He published his first paper in product design titled Penerapan Metode Brainstorming dalam Perancangan Dispenser Otomatis untuk Tunanetra dengan Sensor, Mikrofon, dan Tatakan Gelas.

Mindy is currently an undergraduate student at Industrial Engineering Department at Universitas Sumatera Utara (USU).

Meilita Tryana Sembiring graduated from Universitas Sumatera Utara with a Bachelor’s Degree in Industrial Engineering in 1994, Institut Teknologi Bandung with a Master’s Degree in Industrial Engineering and achieved her Doctoral Degree at Institut Pertanian Bogor in Agriculture Industrial Technology major. She is currently a lecturer in Industrial Engineering Department and Secretary of Master Management in Universitas Sumatera Utara.