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30 November – 1 December 2021

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Proceeding eLearning Forum Asia 2021

Augmenting the Virtual Environment:
Technology | Innovation | Humanity

Semarang, 30 November - 1 December 2021



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Editor:
Dr. Heny Hartono, SS, M.Pd
Cecilia Titiek Murniati, PhD

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Soegijapranata Catholic University

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Program Schedule

https://www.elfasia.org/2021/?page_id=2716

Day One – 30 November 2021	
Jakarta Time (UTC+7)	Details
09:00-09:25	<p>Opening Ceremony</p> <p>Welcoming Speeches by</p> <p>Rector</p> <p>Soegijapranata Catholic University</p> <p>Greetings from</p> <p>Dr. Patrachart KOMOLKITI</p> <p>Director of Learning Innovation Center</p> <p>Chulalongkorn University, Thailand</p> <p>Chair of eLFA Asia</p> <p>Dr. Heny HARTONO</p> <p>Chair of eLFA2021 Organizing Committee</p> <p>- Keynote, Plenary Speakers, Panel Speakers, and Invited Guests-Photo Session</p>
09:25-09:30	<i>Break</i>
09:30-10:00	<p>Keynote Session I</p> <p>Title: Digital Ethics: Navigating Disruption in Higher Education</p> <p>Kevin HENDERSON</p> <p>Director of Digital Content and Programming</p> <p>United Board</p>
10:00-10:05	Video Presentation by Symplicity
10:05-10:10	<i>Break</i>

10:10-10:40	<p style="text-align: center;">Plenary Session I</p> <p style="text-align: center;">Title: Ethical Considerations towards Technology Contribution in an Era of a Rapidly Changing Society: the Responsibilities of Higher Education</p> <p style="text-align: center;">Dr. Aaron LOH Director for Universities Collaboration Assumption University of Thailand</p>				
10:40-10:45	<i>Break</i>				
10:45-11:15	<p style="text-align: center;">Sponsor Session</p> <p style="text-align: center;">Platinum Sponsor – SYMPLICITY</p> <p style="text-align: center;">Title: Connecting Students And Industry Presenter: Mark Pink, Sales Direction APAC, Symplicity</p>				
11:10-11:15	<i>Break</i>				
11:15-12:15	Parallel Sessions-1 (Oral Presentations)				
	Room 1	Room 2	Room 3	Room 4	Room 5
	Room 6	Room 7	Room 8	Room 9	Room 10
12:15-12:20	<i>Break</i>				
12:20-13:20	Parallel Sessions-2 (Oral Presentations)				
	Room 1	Room 2	Room 3	Room 4	Room 5
	Room 6	Room 7	Room 8	Room 9	Room 10
13:20-13:25	<i>Break</i>				
13:25-13:55	<p style="text-align: center;">Plenary Session II</p> <p style="text-align: center;">Title: HE Crossroads: Threats and Opportunities</p> <p style="text-align: center;">Dr. Patrachart KOMOLKITI Director of Learning Innovation Center Chulalongkorn University, Thailand</p>				
13:55-14:00	<i>Break</i>				

14:00-15:00	<p style="text-align: center;">Panel Discussion I</p> <p style="text-align: center;">Topic: Leadership in Technology Adoption</p> <p style="text-align: center;">--Panel Members--</p> <p style="text-align: center;">Aning AYUCITRA, ST., M.Sc., Ph.D. Widya Mandala University, Indonesia</p> <p style="text-align: center;">Sushardjanti FELASARI, ST., M.Sc.CAED., Ph.D. Atmajaya University, Indonesia</p> <p style="text-align: center;">Angelia Melani ADRIAN, Ph.D De La Salle Catholic University, Indonesia</p> <p style="text-align: center;">Cecilia T. MURNIATI, Ph.D Soegijapranata Catholic University, Indonesia</p>
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Day Two – 1 December 2021

Jakarta Time (UTC+7)	Details				
08:30-09:00	<p>Keynote Session II</p> <p>Title: Digital Transformation in Learning and Teaching: Opportunities and Challenges</p> <p>Professor Albert CHAU Vice-President (Teaching and Learning) of Hong Kong Baptist University Hong Kong Baptist University</p>				
09:00-09:05	<i>Break</i>				
09:05-10:05	Parallel Sessions-3 (Oral Presentations)				
	Room 1	Room 2	Room 3	Room 4	Room 5
	Room 6	Room 7	Room 8	Room 9	Room 10
10:05-10:10	<i>Break</i>				
10:10-11:10	Parallel Sessions-4 (Oral Presentations)				
	Room 1	Room 2	Room 3	Room 4	Room 5
	Room 1	Room 2	Room 3	Room 4	Room 5
11:10-11:15	<i>Break</i>				
11:15-12:15	<p>Panel Discussion II</p> <p>Topic: Hybrid Learning: Challenges and Support</p> <p>--Panel Members--</p> <p>Dr. Dave E. MARCIAL Silliman University, Philippines</p> <p>Dr. Yudha THianto Trinity Christian College, U.S.A</p> <p>Tri Basuki JOEWONO, Ph.D Parahyangan University</p> <p>Dr. Heny HARTONO Soegijapranata Catholic University, Indonesia</p> <p>Dr. Min-Yu LI Dean of Global Engagement, Associate Prof of International Business Chang Jung Christian University, Taiwan</p>				
12:15-12:20	<i>Break</i>				

12:20-13:20	Parallel Sessions-5 (Oral Presentations)				
	Room 1	Room 2	Room 3	Room 4	Room 5
	Room 6	Room 7	Room 8	Room 9	Room 10
13:20-13:50	Plenary Session III Title: Modest Augmented Reality Technology for Education Professor Ridwan SANJAYA Professor of Information System Faculty of Computer Science Soegijapranata Catholic University				
13:50-13:55	<i>Break</i>				
13:55-14:25	Keynote Session III Title: Preserving “The Teacher Within” in Virtual Learning Environment Professor Budi WIDIANARKO Professor of Environmental Toxicology Faculty of Agricultural Technology Soegijapranata Catholic University				
14:25-14:30	<i>Break</i>				
14:30-15:00	eLFA2021 Award Presentation				
15:00-15:30	Announcement of 2022 eLFA Host & Closing Ceremony				
<i>End of Conference Day Two</i>					

FOREWORD

The 16th eLearning Forum Asia 2021 was a collaborative event organized by Soegijapranata Catholic University, E-learning Forum Asia, and the United Board. The conference is usually held in different institutions within Asia regions. In 2021, eLearning Forum Asia took place in Soegijapranata Catholic University, Semarang, Indonesia. The conference theme, *Augmenting the Virtual Environment: Technology – Innovation – Humanity*, was to invite researchers, technologists, educators, and students to share virtual experiences, showcase teaching innovations, share insights and ideas on balancing teacher and students' needs and teaching goals.

The COVID-19 pandemic, and the resulting lockdowns in Indonesia and throughout the world, has affected the mobility of students in unprecedented ways. During the pandemic, students have been largely lack of personal experience to visit campuses in-person, to interact with their classmates and lecturers, or to receive academic, technical, and support services on campus. Technological advancement, which have allowed educators to quickly modify and transfer in-person courses to online course designs, have been less successful in facilitating meaningful engagement with students. Parallel to these challenges, many colleges and universities have moved to quickly adopt institution-wide educational continuity plans to streamline the educational delivery process. These plans often include the acquisition and integration of commercially available large-scale learner management platforms, the adopt of which has spurred a series of ethical questions as to the benefit of such systems to institutions and students versus the benefit to technology corporations. This conference serves as a reflection, an opportunity to take stock of the rapid technological and educational movements of the past year and to consider the long-term benefits and challenges to students and institutions of learning.

In this year eLearning Forum Asia, we received 166 conference proposals on related topics and 149 parallel presentations were delivered online. This proceeding is a compilation of 13 selected papers from the concurrent discussion sessions. The committee hopes that this conference will serve as an excellent reference book for technologists or educational technologies enthusiasts. We believe that the insights, best practices, and experiences shared in the papers will be an impetus to stimulate further study and research in this line of inquiry.

We offer our sincere gratitude for the authors who submitted their work. We also thank the E-learning Forum Asia board members, and the United Board, and all the committee members in Soegijapranata Catholic University, and everyone else who dedicated their time and invaluable ideas to make the conference successful.

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Adaptive e-Learning

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Soegijapranata Catholic University

Online Laboratory Work for Herbal Processing

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Food Technology Department, Soegijapranata Catholic University

Abstract: Herbal Processing Laboratory Work is a learning activity that aims to give students the opportunity to investigate and apply the theory of Herbal Food and Beverage lectures. This activity was carried out in the laboratory, attended by all students. However, during the pandemic, the laboratory work must be carried out online, so a different method is needed for the implementation of this activity. The stages of the online laboratory work are (1) laboratory work assistance, (2) virtual laboratory work implementation, (3) hands-on of herbal processing conducted by students, (4) herbal product expo, and (5) final assessment. During the laboratory work assistance, an introduction to all the materials carried out is given, namely the processing of *jamu* (traditional herbal drinks), instant drinks, syrups, confectionery, grass jelly drinks, and dry herbal drinks. Each material is explained about the background, purpose, and processing method. This makes students clearer before the implementation of the laboratory work. Furthermore, a video of processing was made using all the technology and equipment in the laboratory. The virtual laboratory work is carried out by watching the video of the processing. In virtual classes, learning is carried out to observe all processing methods, equipment used and process conditions, as well as the qualities of the final product. Students analyze and solve problems from the given case studies. Then, students prepare reports containing background, objectives, method, results and discussion, conclusions and suggestions. From all the topics that have been given, the students choose one topic to make herbal products (hands-on), take a video, and make video presentations at the herbal product expo. The forum was opened to discuss about the qualities of the final herbal products produced by students. At the final stage, a final assessment is carried out in the form of essay and multiple choice questions to evaluate student understanding in the implementation of online laboratory work for herbal processing.

Keywords : online, laboratory work, herbal processing

Introduction

Indonesian Food and Beverage is an elective course in Food Technology Department Soegijapranata Catholic University. This course studies the Indonesian herbal and spices, including their bioactive compounds and health benefits. All parts of the local plants which have functional properties, i.e. roots, rhizomes, stem, leaves, flowers and seeds are explored. Their functions as 'jamu', aromatic and culinary ingredients as well as natural colorants are also studied. The application of Indonesian herbal and spices for making



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Environment:
Technology – Innovation –
Humanity

Online Learning

functional food and beverage also become the contents of this course.

Herbal Processing Laboratory Work is a learning activity that aims to give students the opportunity to investigate and apply the theory of Herbal Food and Beverage lectures. This activity was carried out in the laboratory, attended by all students. However, during the pandemic, the laboratory work must be carried out online, so a different method is needed for the implementation of this activity. The stages of the online laboratory work are (1) laboratory work assistance, (2) virtual laboratory work implementation, (3) hands-on of herbal processing conducted by students, (4) herbal product expo, and (5) final assessment.

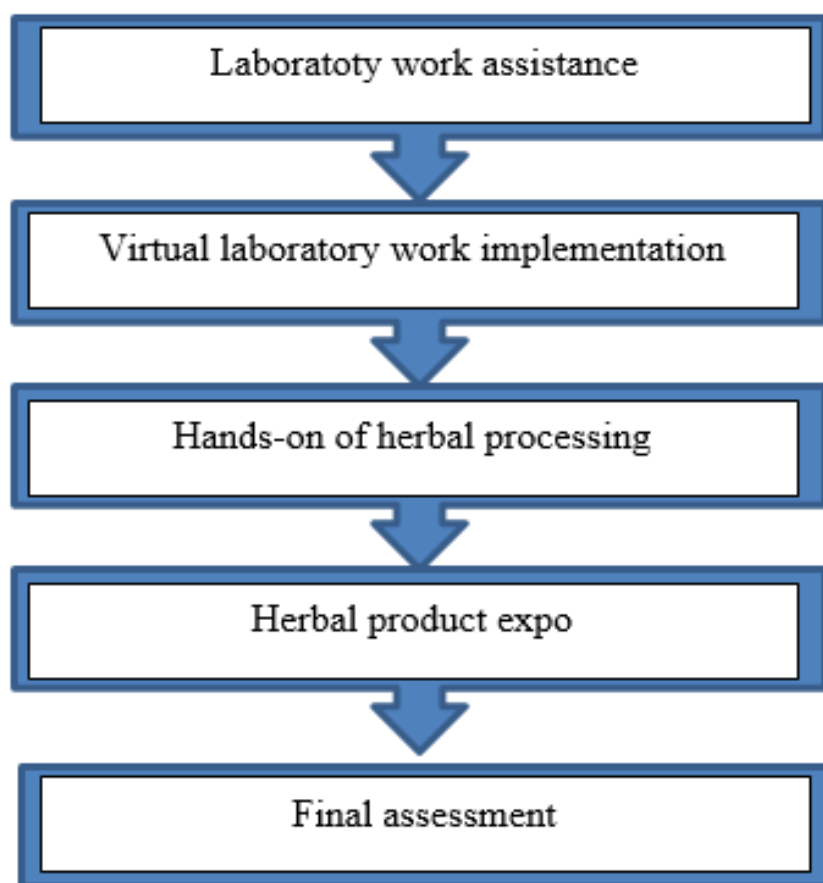


Figure 1. Five stages of the online laboratory work on herbal processing

Laboratory Work Assistance

Firstly, all students have to attend Laboratory work assistance. This activity is aimed to explain the rules of online laboratory work, the whole stages of laboratory work to be followed by students, and the contents of laboratory work. This activity also explain the objectives of herbal laboratory work which are to understand how to produce the herbal products (jamu, syrup, confectionary, ice cream, instant drink, dried herbal drink, and grass jelly drinks) and to know the health benefits of all ingredients.

After attending laboratory assistance, students will understand the whole activities of herbal laboratory work. Students use e-learning in the web super cyber.unika.ac.id to download e-practicum module or other tutorial materials, to upload their assignments, and to join virtual class room.

During the laboratory work assistance, an introduction to all the materials carried out is given. There are 6 topics, namely *Jamu* (traditional herbal drinks), herbal syrup, herbal drinks, confectionery, grass jelly drinks, and dried herbal drinks. Each material is mentioned about the background, purposes, and processing method. This makes students clearer before the implementation of the laboratory work.

Virtual Laboratory Work Implementation

Furthermore, a video of herbal processing was made using all the technology and equipment in the laboratory. The virtual laboratory work is carried out by watching the video of herbal processing. In virtual classes, learning is carried out to observe all processing methods, equipment used and process conditions, as well as the qualities of the final product. Students analyze and solve problems from the given case studies. Then, students prepare reports containing background, objectives, method, results and discussion, conclusions and suggestions.

During this virtual laboratory work implementation session, the students have to discuss about: the results based on case studies (examples: color intensity, texture, aroma, etc), factors influenced the product qualities (temperature, agitation, ingredients, etc), active compounds in the ingredients and its health benefits.

Hands-on herbal processing conducted by students

From all the topics that have been given, the students choose one topic to make herbal products (hands-on), take a video, and make a video presentation. In a group, they have to prepare all the ingredients and to confirm the processing method. They need to buy all the ingredients from the market. Then, they take a video of herbal processing at home. They need to give all the information about the health benefits of ingredients and processing method inside their video.

Herbal product expo

Student presented the video at the herbal product expo. The forum was opened to discuss about the qualities of the final herbal products produced by students. Also, students have to make product innovation based on jamu and herbal ingredients to improve their creativity. Then, this product is presented at herbal product expo. This virtual expo is also attended by the students from other universities and communities who want to know the innovation development of jamu and herbal processing. Herbal product expo is announced with a flyer which is uploaded in the facebook and instagram. Registration link is opened with the capacity for 300 participants. The video of product innovation of jamu or herbal processing is also uploaded in the youtube by each student (Figure 2).

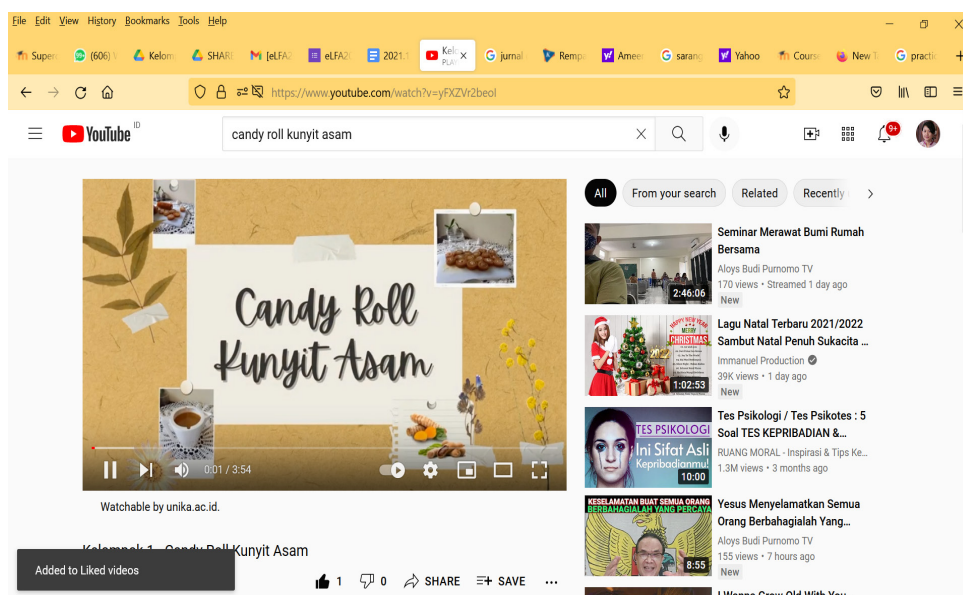


Figure 2. Video of herbal processing uploaded in the youtube

Final assessments

At the final stage, a final assessment is carried out in the form of essay and multiple choice questions to evaluate student understanding in the implementation of online laboratory work for herbal processing. Final assessment is conducted by using quiz platform at e-learning web supercyber.unika.ac.id. Assessment is also given from the final reports, which are introduction: background, literature review and purposes (15 points), material and methods (10 points), results (10 points), discussion (45 points), conclusion and suggestion (10 points), references (5 points) and appendix (5 points). Furthermore, students have to write e-book related to the topic which is already presented at expo session. This book contains health benefits of all ingredients and processing of herbal products. This e-book will be published by Soegijapranata Catholic University publishers to give the information for the community.

Conclusion

Online Laboratory Work for Herbal Processing can be implemented with several activities to improve students' knowledge and skills during pandemic. The stages of the online laboratory work are (1) laboratory work assistance, (2) virtual laboratory work implementation, (3) hands-on of herbal processing conducted by students, (4) herbal product expo, and (5) final assessment. Students' innovation in processing of herbal products can be improved through this online Laboratory Work.

The 16th eLearning Forum Asia 2021 was a collaborative event organized by Soegijapranata Catholic University, E-learning Forum Asia, and the United Board. The conference is usually held in different institutions within Asia regions. In 2021, eLearning Forum Asia took place in Soegijapranata Catholic University, Semarang, Indonesia. The conference theme, Augmenting the Virtual Environment: Technology - Innovation - Humanity, was to invite researchers, technologists, educators, and students to share virtual experiences, showcase teaching innovations, share insights and ideas on balancing teacher and students' needs and teaching goals.

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