

HISTORY OF MANUSCRIPT PUBLICATION

Proceedings of International Conference

eLearning Forum Asia (eLFA) 2021

Title : ““Online Laboratory Work for Herbal Processing””

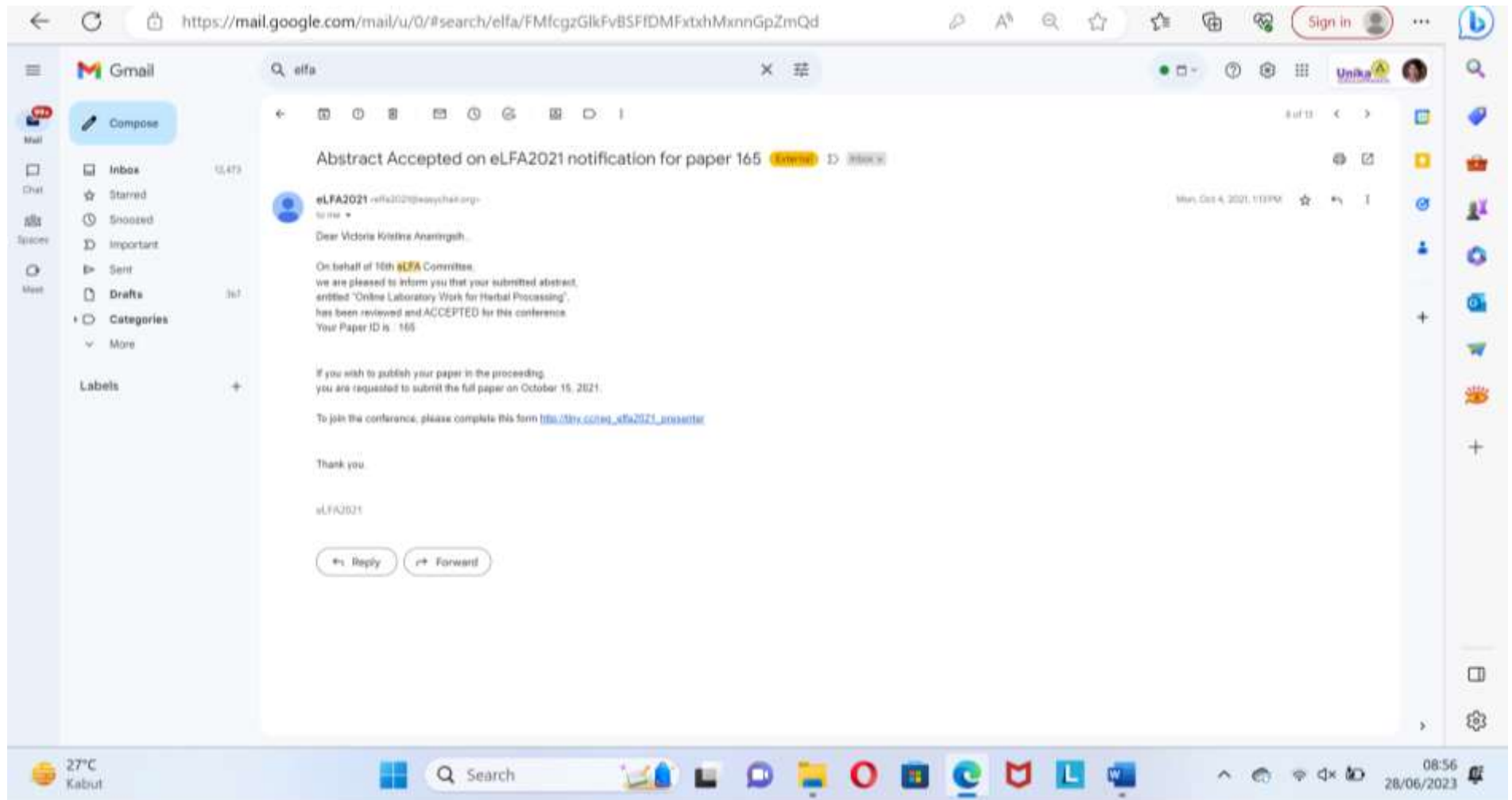
Corresponding Author : Victoria Kristina Ananingsih

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1. Abstract Acceptance



2. Conference Registration

The screenshot displays a Gmail interface on a desktop browser. The address bar shows the URL: <https://mail.google.com/mail/u/0/#search/elfa/FMfcgzGikPXLZxtVdjsDpmwMqrFknnGX>. The search bar contains the text "elfa". The left sidebar shows the Gmail navigation menu with categories like Mail, Chat, Spaces, and More. The main content area displays an email from "eLFA2021" with the subject "[eLFA2021] Reminder for Conference Registration & Extended Full Paper Submission". The email body contains the following text:

Dear Victoria Kaitira Ananingah,
Paper ID: 155
Title: Online Laboratory Work for Herbal Processing

This comes as a reminder to register for the conference before 31 October 2021. Conference registration is here: <https://www.elfa2021.com/registration>

How do you wish to publish your paper?

- a. Conference proceeding
Please submit your full paper with this template (<https://www.elfa2021.com/content/uploads/2021/10/elfa-2021-accepted-template.doc>) before 31 October 2021. Guidelines for full paper submission is here: <https://www.elfa2021.com/content/uploads/2021/10/Full-Paper-Submission-Manual-ELFA-2021.pdf>
- b. Recommended journals
Please follow the journal's format and guidelines
- c. None
Please send your presentation file

How will you present your paper?

- a. Live presentation with PPT file
- b. Pre-recorded video (maximum 7 minutes and presenter still has to join the session for Q&A)

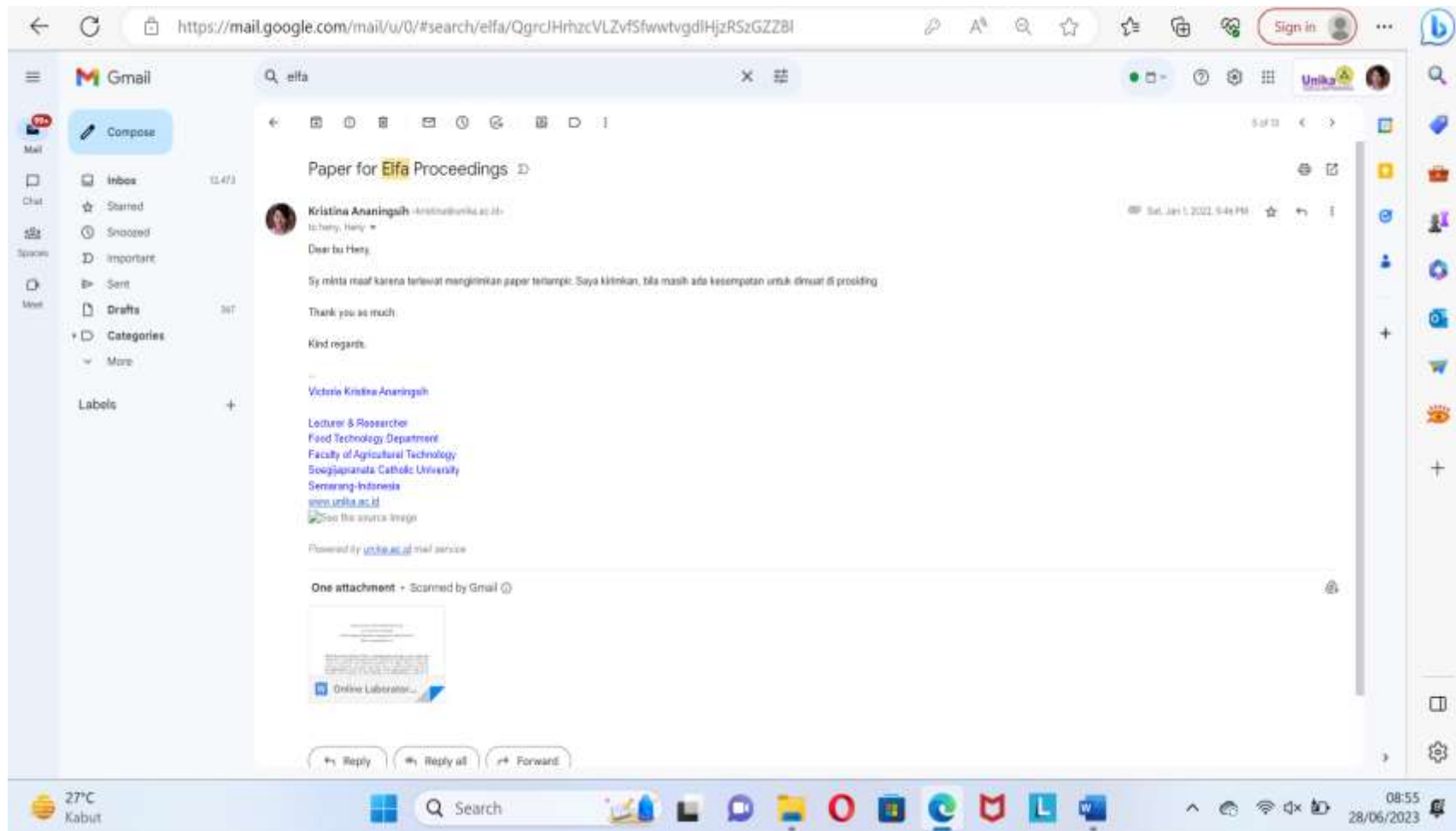
The presentation file or video should be submitted here (<https://www.elfa2021.com/uploads>) before 23 November 2021.

We are looking forward to welcoming you in the conference.

eLFA2021

At the bottom of the email, there are "Reply" and "Forward" buttons. The Windows taskbar at the bottom shows the system tray with the date 28/06/2023 and time 08:57.

3. Full Paper Submission



Online Laboratory Work for Herbal Processing
Victoria Kristina Ananingsih
Food Technology Department, Soegijapranata Catholic University
Email : kristina@unika.ac.id

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 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.

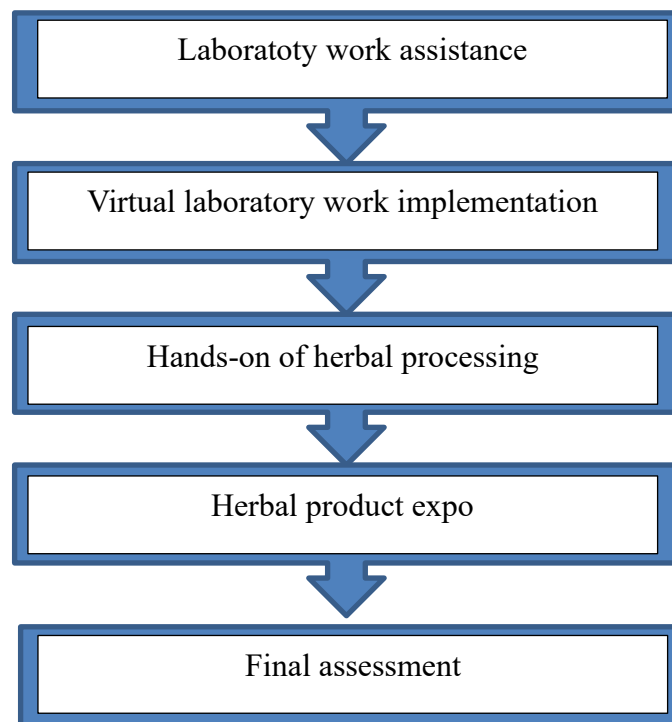


Figure 1. Five stages of the online laboratory work on herbal processing

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 supercyber.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).

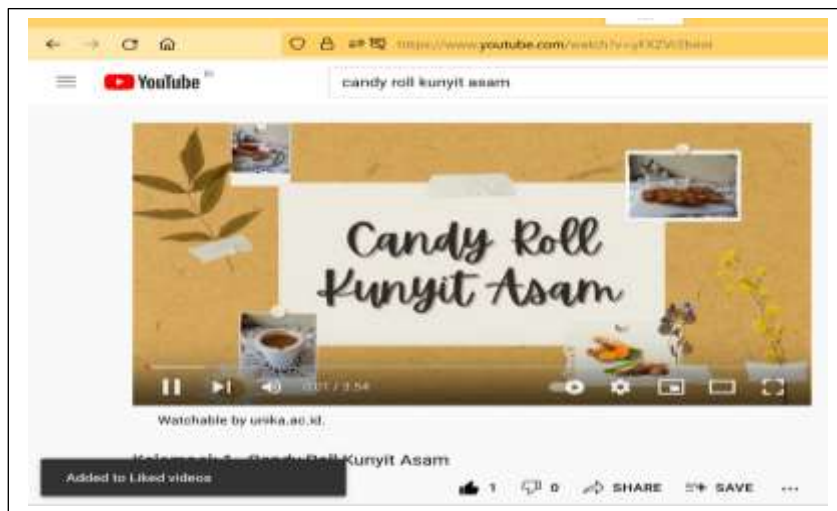


Figure 2. Video of herbal processing uploaded in the youtube

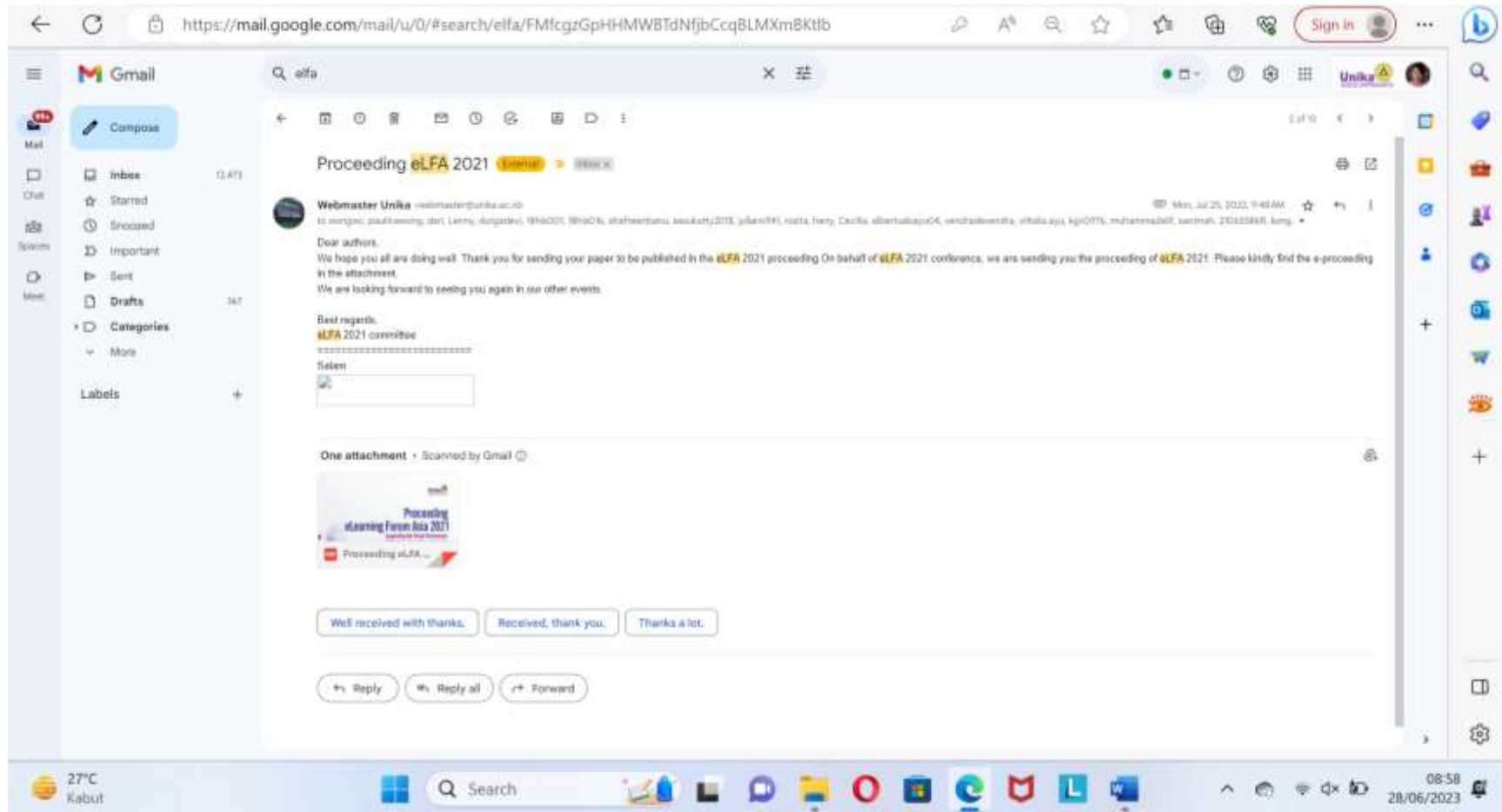
Final assessments

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.

5. Paper in the Proceedings of eLFA 2021



6. Published Paper

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Victoria Kristina Ananingsih

kristina@unika.ac.id

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.

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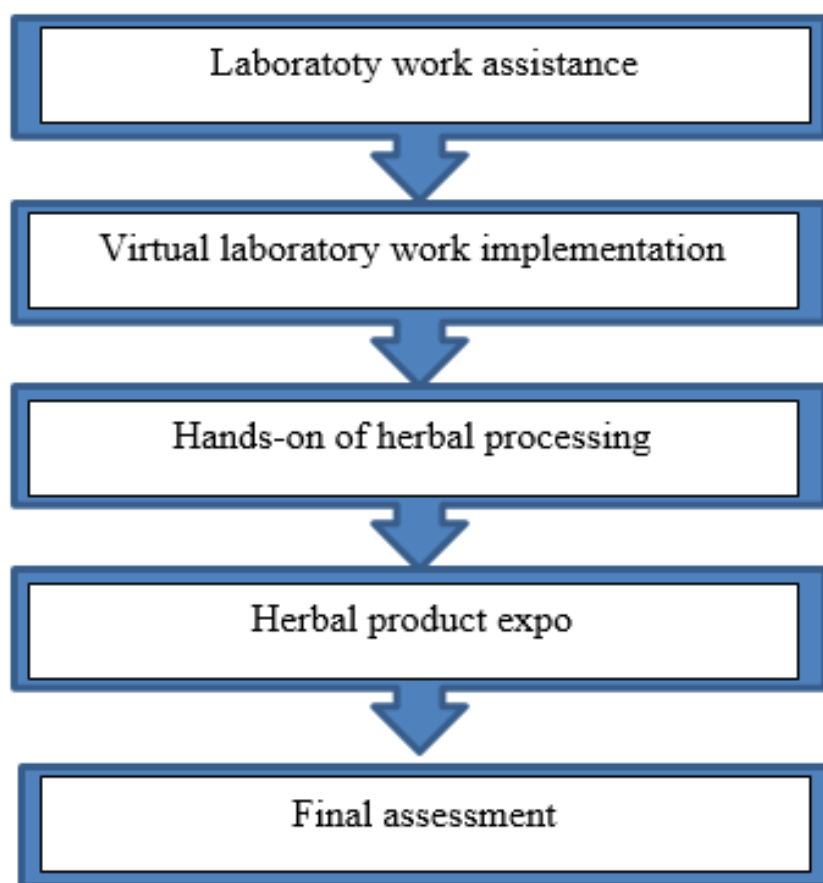


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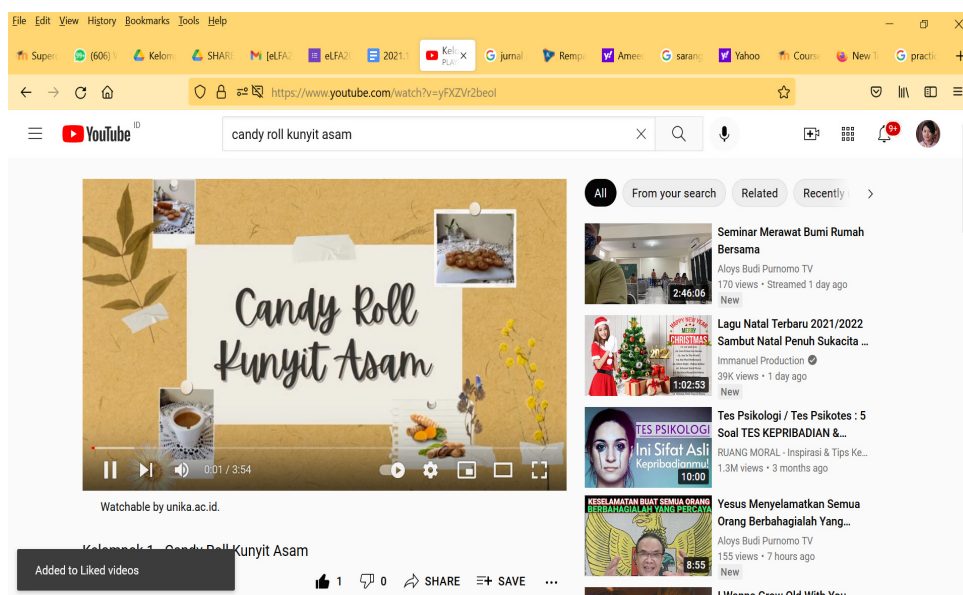


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The 16th eLearning Forum Asia 2021 was a collaborative event organized by Soegijapranata Catholic University, E-learning Forum Asia, and the United Board. The conference is usually held in different institutions within Asia regions. In 2021, eLearning 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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