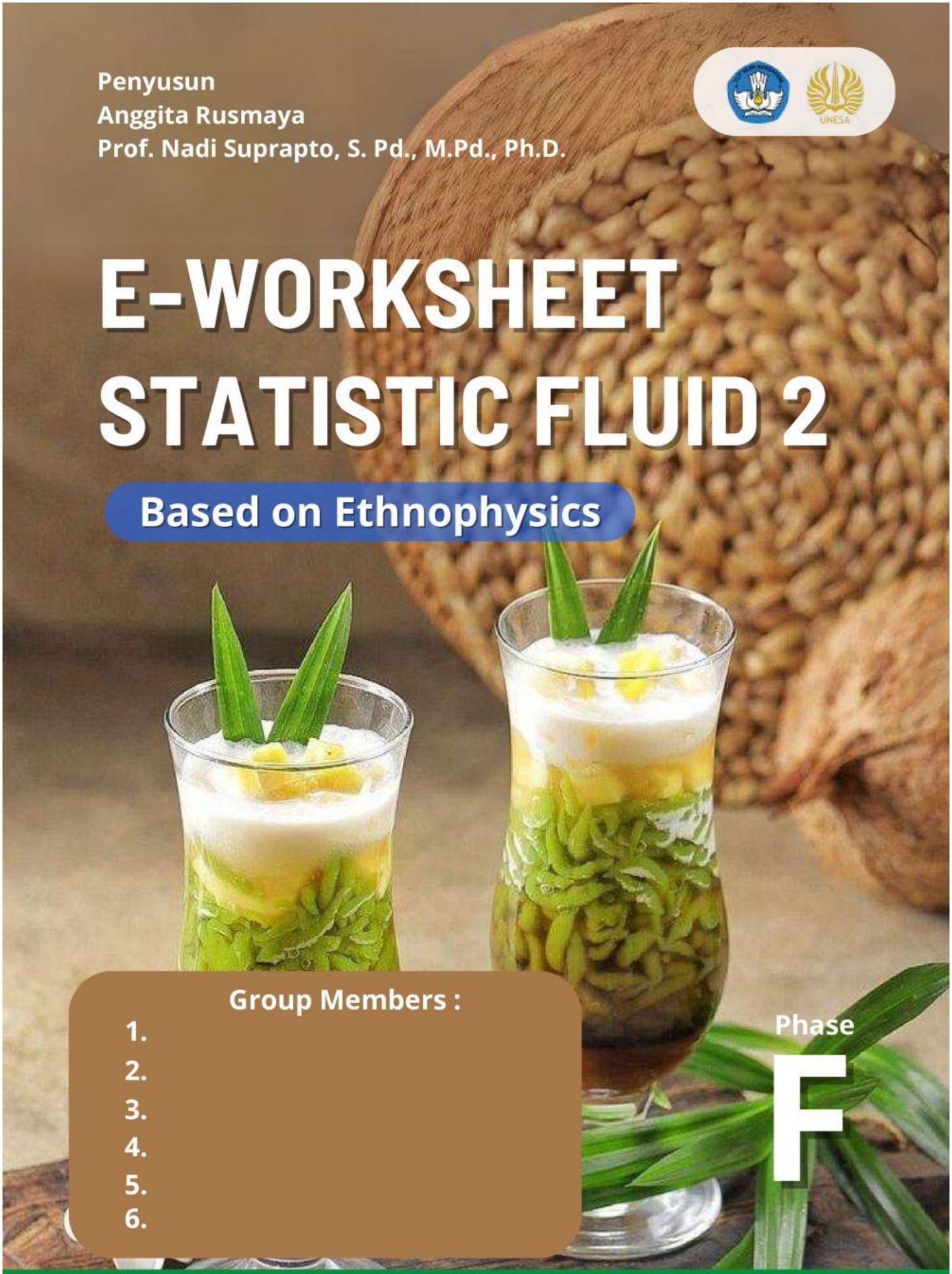
Penyusun
Anggita Rusmaya
Prof. Nadi Suprapto, S. Pd., M.Pd., Ph.D.

E-WORKSHEET STATISTIC FLUID 2

Based on Ethnophysics



Group Members :

1.
2.
3.
4.
5.
6.

Phase

F

Program Studi Pendidikan Fisika - Universitas Negeri Surabaya

LIVEWORKSHEETS

INTRODUCTION E-WORKSHEET

This student worksheet is based on the ethnophysics of the process of making ice dawet siwalan to improve students' critical thinking skills on static fluid material with the Project Based Learning (PjBL).

Ethnophysics is a branch of science that studies the concepts and principles of physics in the context of culture and local wisdom of a community.

Project Based Learning (PjBL), consists of the following learning steps that have been linked to critical thinking indicators:

Stages of PjBL	Critical Thinking Indikators
Problem Presentation	Focusing the Question
Planner & Scheduling	Considering Source Credibility, identifying assumptions
Monitoring	Observe and consider the results of observations
Assessment	Analyze arguments, deduce and consider the results of deductions
Evaluation	Induce and consider the results of induction, determining an action

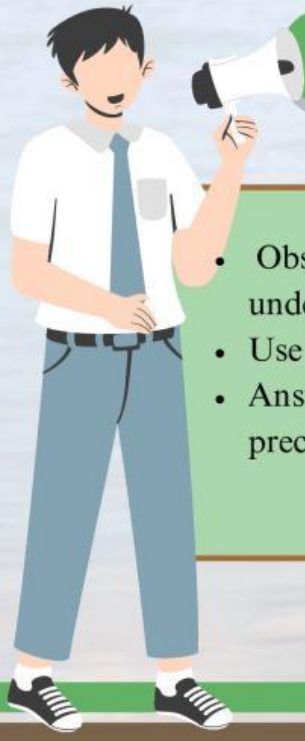
LIVEWORKSHEETS

INSTRUCTION FOR E-WORKSHEET

Instructions for Teachers

- Log in to the liveworksheets account that has been registered, then in the description of this E-Worksheet click the custom link
- On the generate custom link page in the middle column of the default action on click finish menu select the send answer to mailbox option.
- When finished, click the copy link that has been provided at the bottom, then this E- Worksheet link can be shared with students to work on.
- The results of students' work can be seen in the notification or email inbox.

Instructions for Students



- Observe the images and discourse contained in this Worksheet, understand the material presented in it.
- Use literature or other learning resources related to the material.
- Answer all questions on the Worksheet through you briefly, clearly and precisely.

LIVEWORKSHEETS

Monitoring

Tujuan

Monitor and play back the progress of making Siwalan Ice Dawet and ensure that students can identify the concept of statistical fluids in each stage of the project.

Building Basic Skills: Observing and Considering Observation Reports

Petunjuk

Teacher

- Monitors the progress of each group through interim reports or online discussions (WhatsApp/Google Classroom).

Students

- Make a video of the process of making Siwalan dawet ice, highlighting the observed physics aspects.
- Explain in the video how the concept of statistical fluid plays a role in each stage.
- Record observations related to the concept of statistical fluid that arise during the process.
- If there are technical constraints or difficulties understanding physics concepts, consult with the teacher through the online discussion group.

At this stage, students carry out the project based on the schedule that has been made, document the stages of making siwalan dawet ice, and record observations related to the concept of static fluid.

LIVEWORKSHEETS

Assesment

Purpose

Students present the projects they have created and provide feedback on the work of other groups to improve understanding.

Providing Simple Explanations: Analyzing Arguments
Drawing Conclusions: Deducing and Considering Deducting Results

Instructions

Teacher

- Guides students to present their project videos, and analyze the application of the static fluid concept in each stage.

Students

- Show the project video that has been made, showing the stages of making Siwalan Dawet Ice and related physics concepts.
- Explains in the presentation how the static fluid concept is applied in the manufacturing process.
- Provides responses or questions to other groups' videos.

Collect the video results of the process of making siwalan dawet ice which has been integrated with static fluid material at the following link!

LIVEWORKSHEETS

Evaluation

Purpose

Students reflect on the learning experience of the Es Dawet Siwalan project, evaluate their understanding of the concept of static fluids, and identify the relationship between theory and practice in everyday life. This evaluation also aims to measure individual understanding through a posttest.

Drawing Conclusions: Inducting and Considering the Results of the Inducting.
Setting Strategy & Tactics: Determining an Action

Instructions

Teacher

- Facilitates reflection on learning by providing guiding questions that help students evaluate their experiences.
- Summarizes learning conclusions, summarizes the relationship between the project and physics theory.

Students

- Fill in a reflection sheet to evaluate the learning experience and application of the concept of static fluids.
- Express opinions about difficulties and strategies used in the project

LIVEWORKSHEETS

Group Reflection

Instructions:

- Discuss the following questions with your group
- Answer the questions throughout the project
- Record your answers in the space provided.

What is the biggest challenge in making videos and projects?

How does the concept of static fluid help in understanding the making of Es Dawet Siwalan?

If this project were done again, what would you improve?

LIVEWORKSHEETS

Universitas Negeri Surabaya

LIVEWORKSHEETS