

## Gap Analysis/Needs Assessment with Learning Objective

### Instructional Goal:

Upon completion of the training module, Sailing School graduates will successfully describe where to maneuver a 22-foot sailboat to avoid the “no-go” areas of the Columbia River when a river barge is approaching, demonstrating proficient navigation and safety skills.

### Gap Analysis Summary

#### Desired Status:

Graduates should be able to predict the paths of river barges based on their current positions and typical river traffic patterns. They should understand how to adjust their navigation based on wind conditions and river currents to maintain safety and execute safe maneuvers to avoid hazards such as rocks and sandbars when large barges are nearby.

#### Actual Status:

Recent graduates of the sailing school, despite having completed the ASA 101 course, display gaps in their knowledge and skills specific to the Columbia River. They do not fully consider the speed and navigational patterns of river barges, nor do they possess a clear understanding of how to respond to an approaching barge under varying conditions. Moreover, they lack the confidence and experience necessary to operate a 22-foot sailboat independently in challenging scenarios.

### Learner Analysis

#### Learner Characteristics:

- **Target Audience:** Recent graduates of a beginner sailing class at the Island Sailing Club, aged 18-65, who are physically fit to handle a 22-foot sailboat on the Columbia River.
- **Entry Skills:** Learners have completed a 4-day ASA 101 course but have limited experience and are still in the novice stage. They are familiar with basic sailing concepts but lack confidence in independently operating a sailboat in the challenging environment of the Columbia River.

- **Prior Knowledge:** Learners possess basic knowledge of sailing gear and charts but are unfamiliar with the specifics of navigating the Columbia River.
- **Motivation and Attitudes:** Learners are motivated to grow their skills and have a strong interest in gaining knowledge specific to the Columbia River. They are enthusiastic about the hands-on instruction and are eager to learn how to avoid dangerous situations.

### Gap Analysis/Needs Assessment:

<i>Desired Status</i>	<i>Actual Status</i>	<i>Discrepancy</i>
<u>Graduates can accurately predict paths of river barges based on current position and typical river traffic patterns.</u>	Based on observations and interviews, recent sailing school graduates <u>do not consider</u> how fast barges move.	<u>Lack of understanding</u> about how barges navigate and signal their movements.
<u>Graduates can understand how to adjust their navigation based on wind conditions and river currents to maintain safety.</u>	Graduates <u>do not know</u> all the best options to take when faced with an oncoming barge depending on variable conditions.	<u>Inadequate skills</u> in adjusting sailing strategies based on environmental factors.
<u>Graduates can execute safe maneuvers to avoid hazards such as rocks and sandbars when large barges are nearby.</u>	Recent Grads know basic skills but <u>are unaware of all the unsafe areas</u> to sail and what to do when a barge is approaching.	<u>Poor maneuvers</u> in emergency situations or close to large vessels.

### Discrepancy:

The primary gaps identified include:

1. **Lack of Understanding of Barge Navigation:** Graduates do not fully understand how barges navigate, signal their movements, or how these factors impact their own navigation decisions.

2. **Inadequate Skill Adjustments Based on Environmental Factors:** Graduates are not equipped with the skills to adjust their sailing strategies effectively when faced with changing environmental conditions, such as wind shifts and river currents.
3. **Poor Maneuvering in Critical Situations:** Graduates demonstrate deficiencies in executing safe maneuvers, particularly close to large vessels like barges, leading to potentially dangerous situations.

### **Connection to Topic**

#### **Context of the Issue:**

The gap in knowledge identified through observations and interviews with recent graduates is a direct result of the limitations of the ASA 101 curriculum. While the curriculum provides a strong foundation in basic sailing skills, it does not adequately cover the nuances of navigating local waters like the Columbia River. This gap is critical, as the Columbia River presents unique challenges, including heavy barge traffic and complex currents that are not addressed in the standard course.

#### **Real-World Consequences:**

The lack of specific training on navigating the Columbia River has led to several incidents, including sandbar groundings and boats being pinned against rocks. These incidents highlight the urgent need for a focused training module that addresses the specific conditions of the Columbia River and equips graduates with the knowledge and skills necessary to navigate safely.