**Student Assessment**

**Summative Assessment Plan and Rationale**

**Student Learning Outcomes:**

**LO 1** - The student will know all of the steps necessary to conduct the operation of having a small boat come alongside the vessel

**LO 2** - The student will know all safety concerns and safety precautions which are associated with the operation of a small boat coming alongside the vessel

**LO 3** - The student will understand the different positions and responsibilities of each position. The student will also understand how all of the positions interact with each other and how the various steps of each position rely upon the others.

The lesson covering the operation of a small boat coming alongside focuses on the Levels of Blooms Taxonomy involving Knowledge and Understanding. All of the materials including the worksheet, the videos, and the quizzes focus heavily upon the achievement of learning all of the steps, and then understanding how these steps connect across the different perspectives of the Bridge, the Small Boat, and the Bow. Due to the design of the course, the students will not only will the students be able to know the steps of each position, but they will understand how and why they connect together. Although the materials also present the opportunity for the students to approach an ability to apply the knowledge, this lesson does not provide an actual opportunity for the students to demonstrate or practice the application of these steps, so this level of Blooms Taxonomy would be achieved at a later point in the program structure. Although it is not explicitly stated in the learning outcomes, the levels of analyzing and synthesizing are also integrated throughout the lesson as it requires an ability to analyze and synthesize what is going on between the different perspectives, and then determine the connection between the various perspectives to truly understand the full operation of a small boat coming alongside. Due to this structure of the course, Learning Outcome Three truly contains the levels of Understanding, Analysis, and Synthesis.

As the Learning Outcomes focus on the levels of Knowledge and Understanding, the Summative Final Test, should also focus on these levels. Although this can be achieved by simple multiple choice questions, an essay question format was chosen so that the students can demonstrate their ability to approach the level of application by stringing the steps together and explaining the rationality behind the connections between the steps. In order to provide clarity and structure in the assessment of these essay responses, a rubric was developed. The different items being assessed in this rubric include: Content, Thoroughness, Organization/Logic, and Writing Mechanics. The item of Content focuses on the student’s ability to demonstrate their achievement of Knowledge as it requires the student to list all of the required steps and safety concerns related to this lesson. The item of Thoroughness also addresses the student’s ability to demonstrate their achievement of Knowledge as it requires the student to address all of the required items, however it also addresses the student’s understanding as it requires the student to answer all parts of the learning outcomes including the responsibilities and interaction between the different perspectives on the ship. The level of Organization/Logic addresses the hidden levels of Analysis and Synthesis, as it requires the student to not only recite the steps, but also make the connections between the various perspectives in a logical and well organized manner. This demonstrates these hidden qualities which were achieved while the student was gaining the ability to fully understand the operation through the unique design of the lesson. The item of writing mechanics is also included as it is necessary for the student to be able to communicate effectively and clearly when demonstrating the intended Learning Outcomes.

To ensure that the student understands the intended Learning Outcomes along with the expectations for the Summative Final Test, a Lesson Overview will be posted at the top of the Lesson Webpage. This Lesson Overview will include: intended Learning Outcomes, Lesson Structure and Flow, Required Items for each Learning Outcome, and a Rubric for the Summative Final Test.

**Summative Final Test**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Significant Issues (1 Point) | Approaches Standard(2 Points) | Standard(3 Points) | Exceeds Standard(4 Points) |
| Content | The essay did not address the question and content is unrelated | Answer is incomplete. Answer contains some errors in the discussion | Answer is complete. Answer contains only a few errors and in discussion  | Answer is complete and contains no errors in the discussion |
| Thoroughness | Demonstrates significant misunderstanding | Demonstrates a moderate level of understanding | Demonstrates a competent level of understanding  | Demonstrates a high level of understanding |
| Organization/Logic | Weak organization, sentences are rambling, or ideas are repeated. Does not demonstrate connections being made between different points of view | Minor problems of organization or logic. Demonstrates some connections are being made but needs work on transitions between ideas | Clear and logical presentation which demonstrates a good understanding behind the connections and interaction between the points of view | Clear and logical presentation which demonstrates a high level of understanding behind how the points of view connect and interact together |
| Writing Mechanics | Major problems with mechanics of language with awkward sentence construction, poor or absent transitions. Is often difficult to understand. | Frequent problems with mechanics of language with occasional awkward sentences and poor transitions which reduce the readability | Clear and readable with good use of transitions. Some minor issues with spelling, punctuations, or grammar which do not take away from content | Clear and readable with good use of transitions. No issues with spelling, punctuations, or grammar. |

**Teacher Assessment**

**Evaluation and Rationale**

As these materials are being provided to another teacher who might find them difficult to use and integrate into the classroom, an evaluation of the course design should be conducted. The items which should be evaluated include: Student achievement of Learning Outcomes, Student’s ability to navigate the website and use the 360 Degree Videos, User Experience of the 360 Degree Videos, Lesson Design, and Teacher’s ability to navigate the website and use 360 Degree Videos. The Student achievement of Learning Outcomes is the ultimate goal of the lesson, however the usability and quality of the materials contribute significantly to the overall quality of the lesson and should also be evaluated. Student achievement of Learning Outcomes will be determined through the student’s performance on the Summative Final test. The usability and quality of the materials will be determined through a survey. These surveys are located both at the bottom of the Lesson Webpage and the Teacher’s Materials Page. Results are automatically collected and analyzed by website.

**Student Survey Questions**

 Navigation and use of Cadet 360 Website?

* Initially clear and easy to navigate and use
* Slightly confusing at first, but became easy after becoming familiarized
* Frustrating at the beginning, but eventually accomplished tasks with some difficulty
* Extremely frustrating, never became comfortable using this website

Navigation and use of 360 Degree Videos?

* Initially clear and easy to navigate and use
* Slightly confusing at first, but became easy after becoming familiarized
* Frustrating at the beginning, but eventually accomplished tasks with some difficulty
* Extremely frustrating, never became comfortable using these videos

360 Degree Video’s contribution to your learning

* These videos were very beneficial and contributed significantly to my learning
* These videos were helpful and contributed somewhat to my learning
* These videos were not very helpful and contributed very little to my learning
* These videos were not beneficial did not add to my learning at all

User Experience

* It was very enjoyable watching these videos and I did not have any issues watching while watching the videos
* I was slightly frustrated by the presentation of the 360 Degree Videos, but it did not take away from the overall experience
* I was frustrated by the presentation of the 360 Degree Videos and it took away from my overall experience
* I became nauseous using the videos and/or could not use the 360 Degree Videos

**Teacher Survey Questions**

 Teacher Materials

* Teacher Materials were well designed and very helpful to the implementation of the lesson
* Teacher Materials were good, but some more information would be helpful
* Teacher Materials were somewhat helpful, but significant issues exist
* Teacher Materials were not helpful and caused frustration

Student Achievement of Learning Outcomes

* Average Student grade on Summative Final Test was 90-100%
* Average Student grade on Summative Final Test was 80-90%
* Average Student grade on Summative Final Test was 70-80%
* Average Student grade on Summative Final Test was below 70%

Navigation and use of Cadet 360 Website

* Initially clear and easy to navigate and use
* Slightly confusing at first, but became easy after becoming familiarized
* Frustrating at the beginning, but eventually accomplished tasks with some difficulty
* Extremely frustrating, never became comfortable using this website

Navigation and use of 360 Degree Videos

* Initially clear and easy to navigate and use
* Slightly confusing at first, but became easy after becoming familiarized
* Frustrating at the beginning, but eventually accomplished tasks with some difficulty
* Extremely frustrating, never became comfortable using these videos

360 Degree Video’s contribution to your learning

* These videos were very beneficial and contributed significantly to my learning
* These videos were helpful and contributed somewhat to my learning
* These videos were not very helpful and contributed very little to my learning
* These videos were not beneficial did not add to my learning at all

User Experience

* It was very enjoyable watching these videos and I did not have any issues watching while watching the videos
* I was slightly frustrated by the presentation of the 360 Degree Videos, but it did not take away from the overall experience
* I was frustrated by the presentation of the 360 Degree Videos and it took away from my overall experience
* I became nauseous using the videos and/or could not use the 360 Degree Videos

**Website Links**

**Student Assessment:**

Click on the Student Lesson Overview Button for guidance on Student Assessment provided to the student <https://www.cadet360.org/360-degree-videos>

**Student Survey:**

Click on the Course Evaluation Button for the Student Survey which evaluates the student experience <https://www.cadet360.org/360-degree-videos>

**Teacher Survey:**

Click on the Course Evaluation Button for the Teacher Survey which evaluates the teacher experience <https://www.cadet360.org/teacher-resources>