Responses from student worksheets on the guided inquiry experiment.

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| **Concept** | **% students** | **# of students** |
| **Limitations** |  |  |
| Observation of freezing could be subjective. | 53 | 9/17 |
| Particles from air or breathing could contaminate. | 47 | 8/17 |
| Frost spreading from one droplet to another could give a false positive to neighboring droplets. | 53 | 9/17 |
| Dye could alter freezing temperature. | 24 | 4/17 |
| Inconsistent temperature across the boat. | 18 | 3/17 |
| Uncertainty about multiple ice nucleators in an environmental sample. | 6 | 1/17 |
| **Improvements** |  |  |
| Covered the bath to prevent contamination by particles in the air. | 94 | 16/17 |
| Used objective quantification method to record droplet freezing. | 47 | 8/17 |
| Spacied droplets farther apart to prevent frost spreading. | 41 | 7/17 |
| Used more replicates. | 35 | 6/17 |