

Target Population: Average middle school and high school students in a biology, environmental science or integrated science class

Learner Analysis:

Information Categories	Data Sources	Learning Characteristics
1. Entry Behaviors	Although by the time a student is in secondary school certain behaviors are expected, additional observation, pre-teaching of concepts and individual tutoring may be needed.	Learners will need to be able to use a computer in an educational setting as user (as contrasted with programmer). Reading, writing and processing skills necessary. (SAME AS CHART)
2. Prior knowledge of topic area	Instructor will have previously taught the definitions of adaptations, biomes, and traits.	Learners should be familiar with basic topics such as deserts, polar regions and grasslands.
3. Attitudes toward content	Working with learners, past behaviors, pre-quiz.	Most learners will be public education students and likely ambivalent about the topic generally. Students may range from excited to antagonistic.
4. Attitudes toward potential delivery system	Observations and past experiences with the students, consultation with other instructors	Generally students like working with computers and at their own speed, although many associate computers with play and not instruction. Some students may be less comfortable with the medium and others may not take it seriously. Most will be motivated to try though.
5. Motivation for instruction	Observation of learners, also past performance examples	Motivation due to required course, motivation to complete quiz at end, possible post-computer performance test mentioned ahead of time.
6. Education and ability levels	Requirements to be in class, plus observation and data from assignments	It is expected that learners have completed elementary school before starting this task

7. General learning preferences	Observe, interview potential learners	Many students enjoy and are comfortable with computers. Some students will enjoy the individualized learning pace. Use of images will help visual learners.
8. Attitudes toward training organization	Observation	Public education is not always popular with all students, but as this task is not one they will have very often, it will provide some novelty.
9. General group characteristics	Observation, experience and literature on group dynamics	It can be expected that some students will have learning disabilities, some will not be as proficient with English and many others may be bored with the educational system. Class sizes in Utah may be from about 25-50 students with about equal numbers of male and female. Dynamics vary greatly.

Performance context

Information Categories	Data Sources	Performance Site Characteristics
1. Supervisory support	Discussion with faculty members, observation	Teacher will act as facilitator for the project. Students will be asked to perform at end of unit and recognition will be given.
2. Site physical aspects	Observation, discussion with faculty	Facilities: a computer lab within a school. At minimum, one computer for every two students and optimally one computer per student is needed. Arrangements will be made to reserve computer lab.
3. Site social aspects	Observation, self-selecting groups if group work is needed	For this project, students should work on their own, and general supervision is given by the instructor. If partners are needed, assignments or self-selected teams can work. Other faculty members may be used as resources as needed
4. Skill relevance	Observation, discussion with faculty, Utah State Core for Science	Students should be able to make predictions based on acquired knowledge. Knowledge of biomes is a part of biology, environmental science and also an 8 th grade integrated science. This is also useful for understanding climate in a changing world.

Learning Context Analysis

Information Categories	Data Sources	Learning Site Characteristics
1. Number/Nature of sites	Visits, observations, interviews with faculty	The site should be comfortable and allow for a non-crowded learning experience. This may be done at a single school, or at several, and can be done simultaneously via the Internet or at any moment. Ideally there should be computers for all students within the computer lab, and all computers should have an Internet connection. Software should be placed on a site with sufficient bandwidth to accommodate all users.
2. Site compatibility with instructional needs	Observation, testing the software and computer capabilities	Site may be separate from the classroom. The instructor should have discussed the definition of a biome and perhaps given examples. All other instruction will be on computer for this lesson. It is expected that students will use one class period to perform this task. Additional time may be given for slower students. For those not able to attend, this may be accessed from any Internet-connected computer.
3. Site compatibility with learner needs	Observations of student abilities, verification of usability of software	Computer lab should be at the school where the students are already present. There must be sufficient space for all class members (the number depends on class size) and sufficient computers available for all students. (See Performance Context #2. Students will need supervision to ensure they are on-task and meeting the goal.

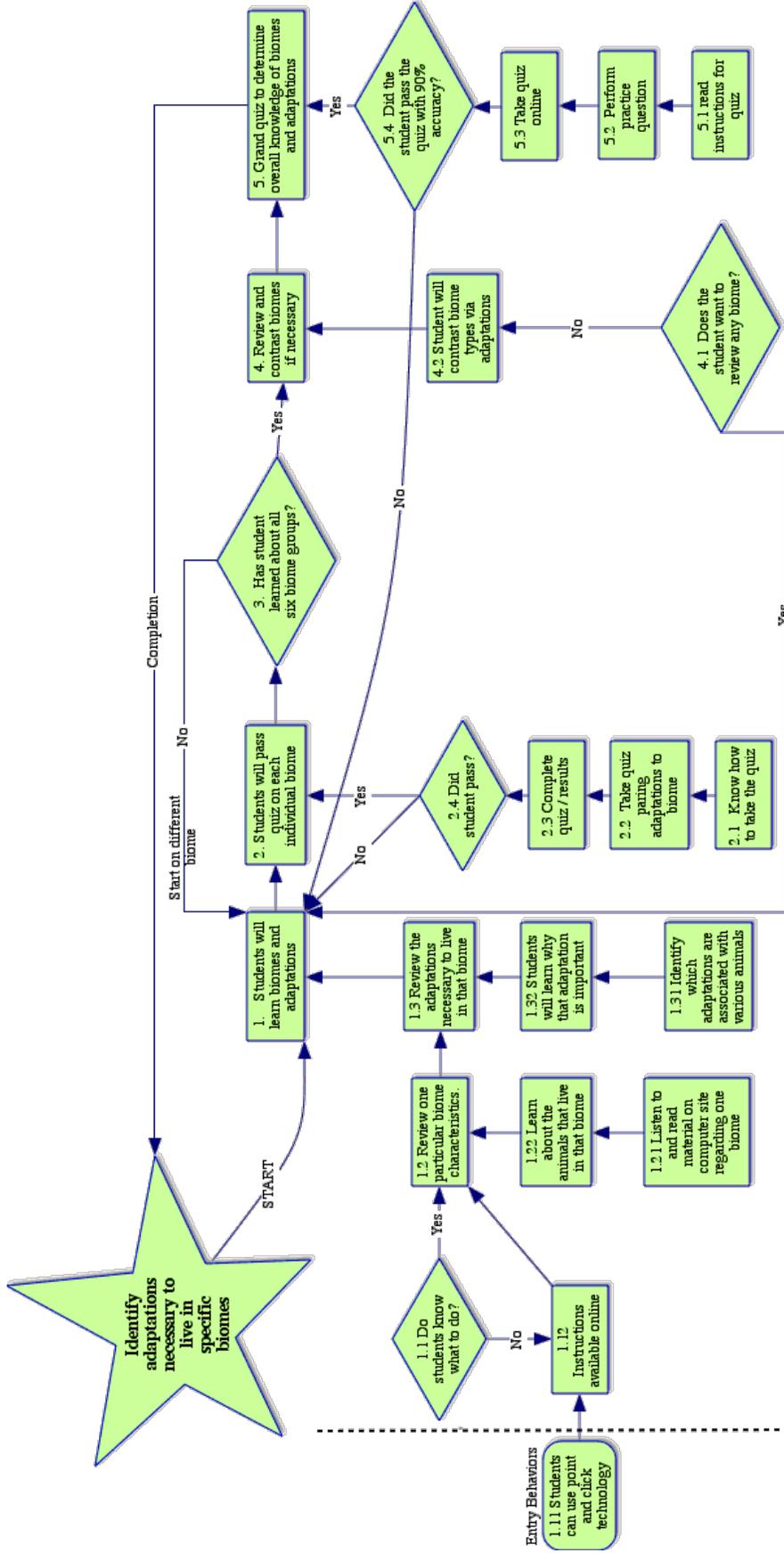
4. Feasibility for simulating workplace	Interviews and observations	The instructor should be well-versed with computers and able to navigate the Internet. The instructor should create opportunities for students to share what they have learned with their peers and motivate students to do their best. The facilities should evoke curiosity. This may be done through the program. The information must be engaging so that students can translate what they've learned through visual and auditory stimulation into meaningful application.
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Reflection:

This project helped me understand how to dissect what I do intuitively. I have been an instructional designer for years, but have never stopped to think about the steps I use and how I design instruction. I hadn't thought of outlining all of the necessary steps in this manner to completely analyze the learning process. It was eye-opening to see all that I do in my head.

One thing I did note is that I probably don't pay enough attention on how this looks for the angle of the learner. I know what material I need to convey and how I want to do it, but I really don't think of the social context for the individual or if I'm meeting all needs. To be fair, I think I do most of this without thinking about it directly, but this exercise helps me to consider about the few aspects I may have neglected.

I do understand why this isn't used on all projects. It is far too time consuming for EVERY lesson plan an instructor will create. It was useful to do it once however. I plan to use more analysis in the future as I plan lessons.



Entry Behaviors
1.1.1 Students can use point and click technology