

Authentic Accessible On-line Biology Laboratory Experiences		
#	Question	Answer(s)
1	Have you looked at longer term data? Such as performance in higher level courses? or response from employers?	We have looked at long term data since we have run this class for 15 years now. Higher level online sections are not available through MSJC online. or at least not until COVID hit. WE are in the test stage for say Microbiology and majors now.
2	What about in comparison of performance of the online students to inseat skills? i think about like having skipped like learning microscopes and then jumping into a class where they smear slides vs. having a student that already has microscope skills. Is there a difference or a big deal?	I am not sure about that information. I will ask Roy at the end during the Q&A we have as well.
3	Do you offer Human Anatomy and Physiology labs?	eScience offers many different lab kits You can look at that wesbite eScience.com to view their kit options.
4	Have you evaluated the potential risks with academic integrity comparing online vs Face-to-Face?	Yes, We have discovered that most students will have their textbook open while taking their exams. but the time limit doesn't allow them to search too long and they need to understand and know the information before testing
5	I'm wondering about the cost of the kit	student price is about \$190 at our bookstore =S&H
6	Could you give an example of a discussion question for a bio class in canvas?	can you email me at tturner@msjc.edu and I will send you a few...I am trying to stay in the zoom session and I would need to leave to capture that for you.
7	eScience.com brings me to components for deposition reactors, a company in Belgium. Is that website correct?	No esciencelabs.com should work
8	What is the cost? What type of textbook is used (free, or hardcopy?)	\$150 - 200 depending on what is included. eBook about \$30
9	These escience kits, do the students each purchase their own? They are a little pricey-does your school supplement the cost? We have a lot of first gens and rural students so cost is a huge issue.	Most of the time, yes they purchase them. We had special funding for COVID so Summer 2020 they are free.
10	What is the catalog number for that kit at eSience.com?	esciencelabs.com Our kit is special for MSJC but they have a number of one semester and two semester intro. to biology kits
11	How long does it take for the kits to get to the students once they order them? I am thinking about issues when student enroll late.	about 7 days
12	I am sure Roy might mention this at some point, but what is the price-point for the kits, and do the students shoulder the cost or is it provided by the college? Can their financial aid cover the cost of the kit?	our students kit is \$190 from the MSJC bookstore.
13	Your students pay for the kit via your bookstore?	yes or order it directly for eScience and have it shipped. Student can also have it shipped through our Bookstore as well.

14	How do those fees compare to lab fees when students attend labs live?	on campus class is free, however for the convenience of taking it at home and not coming to campus the cost fits their budget as well as time frame needed to complete it.
15	Is the Safety Contract a MSJC document or an eScience document?	It is an eScience document that was similar to ours so we just use it.
16	Do you lecture each week or is most of the work done by students reading modules and a task?	yes each week that coincide with the lab concepts and material
17	How are the buttons made, and are the pictures "alt-texted?"	Canvas actually has great applications for this. All pictures are "alt-text" for screen readers and all written assignments use screen reader formatting
18	2-3 labs per week for summer school class or regular semester class?	For our 8 week offerings in both summer and regular semester. We also have regular 17 week session which then spreads the labs out over the entire semester.
19	Does the school need to pay to have the digital information available through Canvas like this?	No, it is part of our Canvas contract. I know some of this is off-set by the State.
20	The Science Labs have a cost?? or they are available on Canvas (app)?	the eScience labs cost about \$150 to 200 depending on which one you use.
21	How can we get access to eScience Labs?	contact <a href="http://esciencelabs.com">esciencelabs.com</a> <a href="mailto:sfehr@scienceinteractive.com">sfehr@scienceinteractive.com</a>
22	Do you have it set up so you can view how many times (or if they have?) retried the quizzes	Yes, all exams can be taken up to 3 times
23	Are the links to glossary and labs all directly from eScience Labs or are these developed directly by you/faculty in general?	eScience has developed all the links. Simple upload to our Canvas shells.
24	What experience, if any, do you have regarding fully online courses other than intro bio (e.g. anatomy, physiology, micro lab)?	So far just non-majors biology. Plans for A&P, Micro and Human Biology for Fall 2020
25	Do you find most students are accessing the lab material from a computer or is it mobile device friendly?	Mainly computer. Can use advanced mobile phone features to view labs but completing our "assignments" really requires Word or similar word processor.
26	Do students buy the kit? What is the cost?	Yes, ~\$190
27	Was it easy to embed the e-Science into your modules?	Very easy, Simple upload into course shell.
28	How do you handle students who lose or spill product and cannot complete the lab? How does your campus handle the liability issues of shipping chemicals or "potentially dangerous" equipment?	eScience accepts all liability. Big selling point! Students can request missing supplies and replacements from eScience most of the time at no charge. I extend due dates.
29	Do students video tape themselves doing the experiment?	No but I do ask for documentation "pictures".
30	The link is: <a href="http://esciencelabs.com">esciencelabs.com</a>	thank you!
31	What software was used to create the video?	Not sure as this is all done by eScience
32	How did Tessa get her demonstration video taped?	Tessa's was one of our home grown videos using a mobile phone

33	How do you hold students for actually completing the activities and not just watching the video tutorials to answer the questions?	There are assignment work sheet that must be completed for all lab assignments. We ask for documentation "pictures" to show lab set up.
34	I would love to hear more about why the "home-grown" lab kits didn't work out.	ADA compliance and formatting issues, prompted us to go with a professional kit and lab manual for this reason as well as liability issues with the college
35	how much do escience kits cost? Do they order individually or is cost built in to lab fee?	ours in about \$190 but costs vary depending on kit. Students pay for their own kits
36	I have heard that companies that sell lab kits are generally not accepting new customers because of the huge increase of demand for them due to the coronavirus. Do you know if that is true for eScience?	I do know this has been a problem. We have a good back inventory so we have not had problems. You would have to contact eSciencelabs?
37	Does your fully online Biol 115 transfer to UC and CSUs and fulfill their GE requirement (pre-COVID19)?	yes they do
38	I'm very curious about the costs to students (or does the college absorb the costs of the kit).	The college is absorbing the cost for Summer semester as we have some special COVID funding. Usually paid by students.
39	Does the kit contain extra materials in case students make a mistake?	Yes, for most exercised
40	How do you evaluate the labs per student?	answer sheet/ assignment
41	Have there been students with issues with accessing a refrigerator or other supplies? I have concerns about our homeless students.	No, but we have not had any declared homeless students take the class. We do offer students the availability to access lab help on campus if they do not have sufficient resources to do any lab.
42	Do they get a safety training before using those kits?	yes with MSDS sheets. it the 1st lab
43	1. cost of a kit	~\$190
44	What do students do to document what they have done and their learning?	type into an answer sheet and submit it
45	2. how do you verify that students do the actual work?	we ask for "picture" documentation of lab set up and our worksheets are pretty specific to only being able to be answered with data from the actual experiment.
46	What textbook do you use?	Biology the Core, Simon Pearson Pub.
47	How do community college students afford the costs of these kits? Our cc students would find this very expensive. Of course, that might (post-covid) reserve online labs for only those that really need online education.	It is a trade off to the expense of coming to campus.
48	How would you do PCR? Or pretend to do it?	PCR is a virtual lab.
49	3. What about microscopy?	Microscopy is virtual
50	4. How do you do lab exams?	We do not give lab exams only graded assignments.
51	Does escience assume the safety liability? Versus the college?	eScience accepts all liability. Big selling point!
52	Normally, lab costs would be paid for by the school. Shouldn't the school consider paying for the kit?	Yes, they should. We have been looking at having college off-set costs relative to normal on-campus lab expenses.

53	give a quick synopsis of how you do microscope labs?	microscopy is virtual for a number of labs
54	Has eScience been impacted by the new huge demand for kits?	Not for us, but I am not sure for new orders
55	I hear that eScience is out of stock / not accepting new orders for Fall. How might that be addressed?	Not for us, but I am not sure for new orders
56	What other costs do the students have--e.g. textbook?	Textbook and a few supplemental reading material, we encourage eBook for about \$30. Supplementals are about \$10.
57	Tessa, why not put together your own kits for the students? Wouldn't this be more cost effective?	We tried this, way too time consuming, cost us more to do it for 600 students. Also college had all liability, shipping, handling, business office nightmare.
58	Do they do anything with the DNA?	The DNA isolation lab that we presented is part of the hands on DNA, but there are also other DNA transcription, translation, mutation labs.
59	I would also love to hear more about hypothesis testing.	All our labs have hypothesis testing built in.
60	There are ways to do a little electrophoresis?	Yes, but we do not require hands on. Ours is virtual. The hands on significantly increases the cost of the kit.
61	Also, I'm told that escience is severely backlogged on orders. Do you have alternatives in mind?	Again, we have not experienced this as we have standing orders well in advance of on campus inventories.