COURSE SUMMARY REPORT
Numeric Responses

Grand Valley State University
College of Liberal Arts and Sciences
Statistics
Term: Winter 2019

IASystem
The Course Evaluation Standard

STA 215 57
Intro Applied Statistics
Course type: Face-to-Face

Taught by: Bradford Dykes
Instructor Evaluated: Bradford Dykes-Assist Prof

Evaluation Delivery:	Online
Evaluation Form:	A3
Responses:	26/29 (90% very high)

Overall Summative Rating represents the combined responses of students to the four global summative items and is presented to provide an overall index of the class's quality:

Combined Median	Adjusted Combined Median
3.6	**3.7**

(0=lowest; 5=highest)

Challenge and Engagement Index (CEI) combines student responses to several *IASystem* items relating to how academically challenging students found the course to be and how engaged they were:

CEI: 4.4
(1=lowest; 7=highest)

SUMMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Adjusted Median
The course as a whole was:	26	15%	31%	23%	19%	12%		3.3	3.6
The course content was:	26	8%	38%	31%	19%	4%		3.4	3.6
The instructor's contribution to the course was:	26	27%	35%	8%	27%	4%		3.8	4.0
The instructor's effectiveness in teaching the subject matter was:	26	19%	35%	19%	19%	4%	4%	3.6	3.8

STUDENT ENGAGEMENT

Relative to other college courses you have taken:	N	Much Higher (7)	(6)	(5)	Average (4)	(3)	(2)	Much Lower (1)	Median
Do you expect your grade in this course to be:	26	8%	31%	27%	35%				5.1
The intellectual challenge presented was:	26	8%	42%	19%	31%				5.5
The amount of effort you put into this course was:	26	15%	27%	12%	46%				4.8
The amount of effort to succeed in this course was:	26	8%	38%	15%	38%				5.2
Your involvement in course (doing assignments, attending classes, etc.) was:	26	19%	31%	19%	31%				5.5

On average, how many hours per week have you spent on this course, including attending classes, doing readings, reviewing notes, writing papers and any other course related work?

Class median: 5.3 Hours per credit: 1.8 (N=26)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
	12%	42%	19%	23%	4%						

From the total average hours above, how many do you consider were valuable in advancing your education?

Class median: 3.3 Hours per credit: 1.1 (N=26)

Under 2	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-21	22 or more
19%	35%	35%	12%								

What grade do you expect in this course?

Class median: 3.3 (N=26)

A (3.9-4.0)	A- (3.5-3.8)	B+ (3.2-3.4)	B (2.9-3.1)	B- (2.5-2.8)	C+ (2.2-2.4)	C (1.9-2.1)	C- (1.5-1.8)	D+ (1.2-1.4)	D (0.9-1.1)	D- (0.7-0.8)	E (0.0)	Pass	Credit	No Credit
12%	19%	35%	12%	12%	8%	4%								

In regard to your academic program, is this course best described as:

(N=26)

In your major	A core/distribution requirement	An elective	In your minor	A program requirement	Other
27%	27%	4%	8%	35%	

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STANDARD FORMATIVE ITEMS

	N	Excellent (5)	Very Good (4)	Good (3)	Fair (2)	Poor (1)	Very Poor (0)	Median	Relative Rank
Course organization was:	26	27%	27%	23%	15%	8%		3.6	3
Explanations by instructor were:	26	19%	35%	23%	12%	8%	4%	3.6	6
Instructor's ability to present alternative explanations when needed was:	26	27%	35%	15%	15%	8%		3.8	2
Instructor's use of examples and illustrations was:	26	19%	42%	12%	23%		4%	3.8	8
Quality of questions or problems raised by the instructor was:	25	24%	36%	20%	12%	8%		3.8	7
Student confidence in instructor's knowledge was:	26	35%	31%	23%	8%	4%		4.0	10
Instructor's enthusiasm was:	26	46%	15%	23%	8%	4%	4%	4.2	1
Encouragement given students to express themselves was:	26	35%	23%	15%	27%			3.8	11
Answers to student questions were:	26	15%	38%	23%	12%	8%	4%	3.6	12
Availability of extra help when needed was:	26	27%	23%	27%	15%	8%		3.5	16
Use of class time was:	26	23%	27%	23%	15%	12%		3.5	13
Instructor's interest in whether students learned was:	26	35%	19%	27%	8%	12%		3.7	14
Amount you learned in the course was:	26	15%	46%	19%	8%	8%	4%	3.8	4
Relevance and usefulness of course content were:	25	16%	24%	36%	16%	4%	4%	3.2	17
Evaluative and grading techniques (tests, papers, projects, etc.) were:	26	15%	31%	23%	23%	8%		3.3	15
Reasonableness of assigned work was:	26	15%	42%	19%	15%	8%		3.7	9
Clarity of student responsibilities and requirements was:	26	27%	35%	12%	19%	4%	4%	3.8	5

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STANDARD OPEN-ENDED QUESTIONS

Was this class intellectually stimulating? Did it stretch your thinking? Why or why not?

1. yes lots of questions and problems that require u to use knowledge and think logically

4. No, this class was not.

5. Yes. We were always given detailed activities which were generally interesting and good at applying the book material.

6. Yes, the class really made me think about the data I am presented on a daily basis and how important it is to be able to understand it.

7. Yes, it was, very different style of learning that I have ever had before. It was rather tough due to the fact that we did Team-Based learning and at times I felt as if I were teaching myself the information with a tutor like atmosphere. When the professor spoke and did mini-lectures had much valuable information, wish Professor Dykes spoke more, when he did it was very helpful and showed how much he knew about the class.

8. Yes, this was the first stats class I've ever taken and it really brought new ideas

9. Yes!! The class was constantly making you think outside of the box

10. stretched my understanding of stats and how to apply them

11. The class was not intellectually stimulating because I was too confused.

12. There were a few difficult concepts to understand but I never felt overwhelmed or out of the loop. I am pretty good at math so I didn't struggle too much with the content.

13. Yes, I learned how statistics work and there was plenty of content to learn and go over.

14. It was stimulating. This stuff isn't easy and takes time and effort to understand

15. Yes because I have never taken a statistics course.

17. yes because you had to teach everything to yourself, probably more stressful then stimulating

18. This class made me understand some the more technical aspects of statistics. I had never taken a stats course before this one and it definitely had some new material for me.

19. I gained a decent understanding of statistics.

20. Stats class is something that I was dreading going into it. It for sure made me think a lot.

21. I have never taken a stats class before so a lot of this material was new, but some of the content I have learned in other classes I've taken. It was not a very difficult class, though.

22. At first the class is difficult because it is all new terminology and concepts that I hadn't been used to, but once the basics are understood it is just up to you to utilize them in different ways.

What aspects of this class contributed most to your learning?

1. in class, homework

4. figuring out the homework on own.

5. The homeworks were a nice review of the information in the activities.

6. Working on activities as a group and going over them.

7. Mini-lectures and the amount of hands-on learning in class. When the class obviously struggled with certain topics class was slowed down until it seemed everyone had a decent understanding of what was being taught.

8. Each class working on a new packet was nice

9. The learning modules contributed the most

10. hw, in class activities

11. I struggled to find aspects of the class that contribute and help improve my learning. The professor is very knowledgeable and tenacious, but their teaching style doesn't help students who don't understand math. Occasionally, group work contributed to my learning, but I found that when the professor explained material to the class, is when I began to somewhat understand what was happening.

12. The homework were helpful because they gave me a lot more practice and allowed me to reflect on what we went over in class.

13. The in-class assignments.

14. The TBL aspect of this class contributed most to my learning. My group members were great to work with

15. The group work definitely helped me learn material but the few days I missed really hurt my ability to do well on tests, even with the formula sheets.

18. The lecture consisted of a team-based learning style that sometimes got old but also helped. When myself or my group members would have a question, we would ask each other so that way we would all be able to learn.

20. I liked the fact that I felt we were always doing something in the class. A lot of professors just read from a slideshow which I do not like.

21. Being split into groups took some getting used to but I liked being able to work with other people and ask them questions about homework and things like that. The in class activities were mostly helpful as well.

22. The team based learning I felt was very helpful in order to succeed in this class. The homework assignments were a good reflection of what knowledge was required and were able to thoroughly prepare someone for the exams.

What aspects of this class detracted from your learning?

1. none

2. This class was not easy to succeed in. The professor had one way of teaching and could not adapt to student feedback.

3. professor barely taught the class, wasn't very nice when asking questions

4. poor in class explanations

5. None. I felt like everything we did was well structured, and purposeful.

6. No aspects from the class detracted from my learning.

7. Felt that the majority of the learning was done away from the classroom and it can be very frustrating at times. Little lecture but wish there was more due to instructors knowledge of the field and it was clear with the energy brought to class by him every day.

8. Spss was really easy and I kinda feel like it was a waste of class time, the graph were easy to make and it'd be easier and faster if I didn't have to make it

9. It was difficult when the group assigned did not always contribute or care about assignments or learning

10. none

11. Constant group work sounds like a wonderful idea, except that I am an extremely slow learner/reader. Group members would fly through the questions before I had time to fully comprehend what I am being asked to do and the professor's explanations usually left me more confused. Being expected to fully understand material specifically from the textbook well enough to be quizzed over it also detracted from my learning. I searched to memorize definitions, not understand material.

12. I learn better when I receive new information in class rather than reading it by myself because I then have to spend more time trying to figure out what is being discussed.

13. Bad group members

14. I became friends with my group so I believe TBL can be a blessing and a curse. We learned really quickly how to get down to business though.

15. Sometimes the group work got really distracting with side conversations, so while it is a good tool the people in the group need to be active as well.

17. the amount of frustration felt from the expectation to teach yourself everything

18. Some of the team-based activities didn't really help all too much but I feel like that may have been my own fault for not asking the questions that I had.

20. Well, I was not a fan of TBL. I had a terrible group so it made my experience not as good. I felt I was the only one doing anything, and I did not like feeling like it was constantly my responsibility to teach my group because they did not pay attention. I wish we could have switched groups every few weeks or something so that those with bad groups could still enjoy TBL.

21. Having to read and learn the material on my own and then take a quiz on it didn't help me learn the material. Also, due dates would get confusing sometimes. Following the syllabus wasn't useful since we had the snow week. Sometimes it felt like we were in kindergarten with the "fun bags" and being treated like we're little kids.

22. While the team based learning is helpful, I feel that there are some concepts, especially in the introductory part of the semester that would be better learned individually. When working with a group there are times where you rely on other group members and I feel I missed some important core material that I wouldn't have if I were put in the position of learning it on my own.

What suggestions do you have for improving the class?

1. none

2. Listen to your students and teach more lessons. I am paying for someone to teach me statistics, not for me to teach myself.

3. team based learning sucks

4. explain better

5. Maybe provide more feedback when grading. Sometimes it was hard to know why I was marked down for something.

6. I can't think of any suggestions to improve the class, for me the way the class was run worked ever well with my style of learning and I enjoyed it very much.

7. Try and speak more and explain topics, the readings are long and often become more confusing than helpful. If you'd like to continue TBL I would suggest making Powerpoints with key information that is somewhat a reading guide to help students follow important information and learn and understand the information better. Homework was hard, it seemed many times that we didn't always cover everything we needed to in order to complete the homework. I really didn't hate the class, enjoyed time just personally think some of these tips can help improve the course. In the end if I took another Stats class I would look for Professor Dykes.

8. Maybe intervene with groups a bit more, sometimes I felt overwhelmed and the group didn't help with understanding or didn't understand and just rolled with what ever you said the answer was

9. Making the grades more balanced so it does not just depend on Exams

10. class is fine

11. Explain concepts at the beginning of the chapter in a note taking session with smaller individual/group opportunities to apply the ideas. Quiz on material that has been discussed and applied in class supplemented with textbook reading outside of class.

12. I like the group work, I think it works really well for this type of class but I would have to say that maybe a little more note taking in class would be a nice addition.

13. The class is set up well and the only thing that could change is making sure groups are not stagnated by intelligence

14. If there's anyway to give some explanations before taking I-RATs that would be nice because I would complete the readings and go over them and I still didn't do well.

15. None, class time is fun and engaging.

16. Group exams since TBL

18. I feel like the structure of the class worked but the content made it less enjoyable for me. The instructor did a good job of explaining things that you weren't sure about.

19. I reccomend staying on some subjects more rather than flying through the class. There were a lot of misunderstandings this semester on subjects and it showed in exams. The second exam this semester specifically there were about 3 students who got in A range and were on the low end. To get an A is 93% and above which seems very excessive.

20. 1. Switch the groups every couple of weeks. 2. Do a bit more teaching, Stats is difficult so it should not be on us to have to teach ourselves everything. 3. Less group work, more individual stuff

21. Maybe post weekly announcements to blackboard reminding us of what is due and uploading an updated schedule after classes are cancelled.

22. For in class portions I feel like there are some activities that would be more beneficial if completed individually and then maybe gather in groups for reassurance.

INSTRUCTOR-ADDED OPEN-ENDED QUESTIONS

Identify one or two specific "things" the instructor did to help make the TBL experience beneficial for you.

1. team work and talking through things

4. Nothing made it better

5. The stoping points in the activities were very helpful! It was nice to check our work as we went along in the activities.

6. The entire TBL system was beneficial for me, learning the information on my own before class then having it reinforced and sorted out through activities and lecture was very helpful to me.

7. Mini-lectures and ability to explain tough concepts throughout the course. I liked being put with a group which I had contact with that did help me with learning some of the tougher material.

8. I liked the group quizzes but I also like that we had to take them individually. It was nice to here different answers and explanations for something I may not have gotten

9. The instructor was always willing to give more examples or help explain

10. - the explanation of what TBL is helped - comes over to check on teams

11. The professor provides peer evaluations, which seem helpful, but given the aggressive nature of some group members, I was nervous to be completely honest in their evaluation. The team based learning was not beneficial for me.

12. For every IRAT and TRAT my professor would have us mark which questions gave us the most difficulty and he would either go over it with the whole class or in the individual groups. This helped me understand confusing topics a lot more.

13. He always was able to explain what I could do better and he was always able to answer questions when needed.

14. Allowing us to rank our answers is the best thing that made this experience better than what it would've been. I never left feeling terrible about myself which I think is really important because some college students have very fragile mental health

15. Assigned homework with a very reasonable amount of time to get it done.

18. I could ask my team members questions if I had any and also, if they had any questions then I could help them and learn it even better. I feel that when you teach someone else you it grows your knowledge of the subject.

20. Provided page numbers that link to the book so we can have a good place to look for questions and made the activities clear and easy to understand.

21. going over the answers to the in class activities in detail and the exam coverage sheets were helpful.

22. Made the activities relevant and interesting in order to learn the material.

Identify one or two specific "things" the instructor could have done (either better or at all) which would have helped make the TBL experience more beneficial for you.

1. none

3. we taught ourselves basically everything, he rarely ever taught.. I shouldn't have to pay money for a professor to just do nothing.

4. better explaining and using different techniques to explain

5. Make attendance mandatory.

6. The only thing that the instructor could have done to make the TBL experience more beneficial for me would be if the gave opportunities to regain points lost in the homework, some points I lost were due to little mistakes that I felt I should not have costed me as many points as they did.

7. I mentioned it before, but a reading guide or Powerpoint with more of the highlighted key points, the readings tended to be long and wordy as textbooks can be. Lecture more as I got my best notes and learned the most within Mini-lectures.

8. At first I didn't like the format because it felt hand holdy but that's not so much it. I'm not sure how to improve it but possibly transition it better to the students better in the beginning so they don't resent the whole format the whole time

9. Sometimes it felt the homework was graded harshly when the examples were not always explained to us during the learning modules

10. - we didn't really have a lot of time to get to know each other so there were a lot of awkward silences between work. i don't what to to about that one - Many times our team would just split up during taps and work individually

11. Choosing teams based on personality or mathematical experience/confidence may help. Provide enough copies of each assignment that people can work individually if their team does not function properly. Suggest to members that it is a symbiotic relationship not a race to the finish.

12. I like taking notes in class more than outside so that is one thing that I would change a little more.

13. Making sure the team chemistry worked and team members got along.

14. Mini lectures before I-RATs. I'm doing the pre-readings but thats a lot of information to still be tested on just like that

15. No suggestions.

18. To make it more beneficial we could have been graded on the material we did in class so that we would have more of a stake in the group. The only time that we worked together on graded material was the TRat.

20. I did not think the "fun bags" were necessary. They took up so much space on our desks when we already had 1000 other papers given to us. I wish he would have switched the groups up because my group was the reasons I hated TBL so much. Also, you should have waited to hand back the peer evaluations, because I felt I could not be complete honest because my group members would get the papers back and it would make things awkward.

22. Section out a portion of the class that is done individually that isn't an assessment. The TBL aspect of the class should be more for reassurance.

Identify one or two specific "things" you did to help make the TBL experience beneficial for yourself.

1. engage myself in the group

5. Came prepared to class so that I could help my group.

6. I think the TBL experience was beneficial to me because I made sure to keep up on the readings and really try to understand them.

7. Very clear with my Team and was very easy to talk and receive help, a good team that helps each other is what helped. Not being afraid to talk or disagree with the group to voice my opinion.

8. I asked questions when I or my group didn't understand something instead of doing the lazy thing and just wait for the answer

9. Keeping up with the readings was always very important

10. when team members asked questions, i always answered i always tried to check in on everyone during taps

11. I attempted to share my concerns about team members working too fast and attempted to ask questions, but this did not help. I made small talk to seem friendly, read the textbook, and mostly stayed close to people that were confused/willing to help too.

12. I made sure to contact my group members if I ever felt lost or wanted to study with someone.

13. Made sure to do the readings and homework to be able to help the team.

14. I asked my group questions when I had them. I didn't sit there being afraid I would sound dumb in front of them

15. Had constant communication with my group so when we needed help, we were able to help eachother.

18. I personally worked with my team members to formulate answers and heard their ideas. This helped me to be open to other people's ideas.

20. Read beforehand and always tried my hardest on activities.

21. I enjoyed working with my group members on the in class activities.

22. I felt that I took the lead on a lot of the activities so that I could make sure I wasn't missing out on any material. If I had let my teammates answer the questions we would have been a more well rounded group but I don't think I would have succeeded personally in the class as well as I did.

Identify one or two specific "things" you could have done (either better or at all) which would have helped make the TBL experience more beneficial for you.

1. study more out of class

5. None.

6. The only thing that I can think of that would have made it more beneficial for me would be if I were to come up with questions on the reading before entering class, that way I could more actively be seeking to understand the concepts.

7. Try and take more notes within the reading and come to class with more questions. Coming to office hours when topics got challenging.

8. I would say read, but the book was just so damn boring and the UI was terrible and annoying so even if reading was my biggest issue I refuse to do more then I already did

9. I could have spent more times on my notes and preparing for the irat or trat

10. could have socialized more to make it less awkward

11. I could have expressed by concerns about group members with the professor, but this would only cause drama which would inhibit learning even further

12. I participated during all the activities and offered my opinion most of the time but I could have done a little better in that area.

13. Made sure to fully understand the readings before trying to explain them to others.

14. Its something small, but if you could just print out copies of the Activities for everyone. Having 3 copies, there's 2 people who are basically just watching someone and not actually learning. I understand conserving paper is important but if we recycle them later I'd think its fine

15. Not missed class.

18. I suppose that I could have gone to every single class and helped the team. I only missed like three classes but that's still three classes that the team was one man down.

20. Worried less about my group members and focused on myself because I was always trying to teach them.

21. read the pre-readings in more detail to prepare for the quizzes.

22. If I had shared my thought process when answering questions and completing activities when I felt that my teammates weren't completely on the same page, even if they hadn't said anything.

A friend is taking STA 216 next term & wants a section on certain days/at a particular time. The friend learns the section is being taught using TBL; knowing you have experienced TBL, the friend asks your advice on whether to remain in the section or switch to a different same days/time section. Regardless of who the TBL-section instructor is, would you recommend your friend take the TBL section or switch to a non-TBL section? What justification would you offer if you are asked "Why?"

1. I would recommend this way of learning because its very beneficial and helps u remember things more

3. I did not like TBL, I feel like the class was a huge waste of time, I felt as if I was in kindergarten.

5. Yes! It was a nice way to mix it up and not have to attend a boring lecture. Very fun and effective way to learn.

6. TAKE THE TBL COURSE. I've always struggled with classes focused largely around data and mathematical interpretations but this format really helped me. The only reason I would ever point a friend in a direction away from TBL learning would be if I knew that they were the type of person who refused to do any type of learning on their own, in that case they may be better of attempting to collect as much information as they can through a non-TBL section.

7. I would ask them if they are okay doing a lot of out of class work and learning a lot on their own and gauge my response to that. I enjoyed my class time but not everyone is gonna benefit from TBL environment.

8. I would recommend it to them with the warning that its different, its not any harder but the teaching style takes a while to get used to

9. Yes i would recommend it because the learning modules are very important. I would tell them that make sure they are in a good group of students, because it is hard when people do not always prep for the i rat or t rat and it can hurt your grade in the long run

10. I would say it depends on the person. If they like going solo and learning that way, then go a non-tbl section. If they like the idea of working with other people and giving and receiving help, then go with the tbl section.

11. No you should not take a TBL class. If you want to work in groups, collaborate with those you sit near, but being forced to work with people whom you disagree with doesn't help learning

12. I would say that it depends on the type of learner they are. Going into the class I was not too excited about groups and activities but it turned out to be beneficial for me. I would say to stay but if someone prefers a more traditional class style they should probably switch out.

13. To take the TBL if they are not as confident in their skills, but non-TBL if they are excellent in statistics. TBL is great for those not very well skilled in statistics, however, those who are great may be held back by teams.

14. It depends on the person and how the best learn. If they asked me why they should I'd say because it forces you to communicate with people in your class and when you have a question at 10 pm while doing homework you can't ask your professor but you have at least 4 others that can help.

15. Yes. I find that many people learn better in group settings with team work.

16. personally TBL can be very helpful or very confusing it all depends on the prof, the HW tends to confuse students on the material rather than help so if you find new HW to give instead of the book questions the course will greatly improve

17. switch, tbl has a good idea behind it but the way it is used is not helpful for learning

18. It depends on the person. If the friend was smart and I knew that they had experience in with the material I might suggest a different section. On the other hand, if the friend had no experience (like myself), I would suggest the TBL style learning.

19. I would recommend switching classes. Ive heard from all my friends who have taken stats that their stats class was very easy and the tests were exactly based off of examples they were taught. I felt like TBL made things extremely complicated.

20. Switch to non TBL, I literally hate group aspects because it is always one person doing more than others. I hate the fact that we get graded on T-RATS because my group never listened to me and I ended up being right. It was one of the most frustrating parts of TBL. Nothing against Dykes, because he was a great professor, I just hated my group and TBL as a whole.

21. I think TBL works for some people and doesn't work for others. If they learn well independently and like to work in groups, then I would recommend it. But if they don't learn well independently and would rather not work in groups, I wouldn't suggest it.

22. I would most definitely recommend TBL classes regardless of what subject matter it is. I feel that in a day full of monotonous lectures this allows for a change of pace within the day and an escape from the normality of college classes. I felt that a stronger social aspect while learning the material is very beneficial and is a strong reflection of the real world and working in teams to achieve completion is something that everyone will need to learn to do regardless of profession so being exposed to team based work allowed experience in communicating and coming to agreements with others. I thoroughly enjoyed being in the class, even when the material learned wasn't my favorite. Professor Dykes is very passionate about what he does and truly cares about the success of his students. -Ben Austin