

Analytics and Data Science

LATEST SUBMISSION GRADE

100%

1. Why is the use of agile and iteration in data science less common in academic settings?

1 / 1 point

- ☐ There's a belief in academia that agile is unscientific.
- ☐ They cannot collect usable data sets this way.
- ☒ Many students and researchers don't have access to live sites/apps where they can make changes and observe the results.
- ☐ They don't have a team to work with.

✓ **Correct**

That's right. While there's lots of great data and challenges on sites like Kaggle, data scientists outside industry are generally much less likely to have had the opportunity to practice iterative analytics on live software.

2. You recently started working for a clothing company that wants to redesign its exchanges and returns tracking system. You've figured out that the current tracking system has data that is both human-generated and computer-generated, based on the exchange and return form. Which type of data science capability is this?

1 / 1 point

- ☐ Diagnostic
- ☒ Descriptive
- ☐ Predictive
- ☐ Prescriptive

✓ **Correct**

Yes, this sounds like a situation where you've just figured out two inputs for the data sources and you're working out what that might mean.

3. You recently started working for a clothing company that wants to redesign its exchanges and returns tracking system. Your team has built a model that can tell you which of the follow-up orders is inaccurate because of a data input. Which

1 / 1 point

type of data science capability is this?

- ☐ Descriptive
- ☒ Diagnostic
- ☐ Predictive
- ☐ Prescriptive



Correct

Yes, you're at the point where you can make an inference about the tracking system, based on your data.

4. You recently started working for a clothing company that wants to redesign its exchanges and returns tracking system. Your team has built a model that tells you when one of the follow-up orders – exchange or return – might be inaccurate. Which type of data science capability is this?

1 / 1 point

- ☐ Descriptive
- ☒ Predictive
- ☐ Prescriptive
- ☐ Diagnostic



Correct

Yes, here you're making a forward-looking inference based on your data.

5. You recently started working for a clothing company that wants to redesign its exchanges and returns tracking system. Your team has built a model that generates a prioritized list of follow-up orders for order specialists to cross-check, including deadlines to avoid a delay in shipping the follow-up exchange orders out. Which type of data science capability is this?

1 / 1 point

- ☐ Diagnostic
- ☐ Predictive
- ☐ Descriptive
- ☒ Prescriptive

**Correct**

Yes, you're now making a forward-looking inference and prescribing some action related to it.

6. Which of the following is the most important for a product manager or general manager to be able to do regarding data science work?

1 / 1 point

- ☐ Know which tools (e.g., a Jupyter Notebook) to use when
- ☒ Work with collaborators to figure out which analytical investments are working and are valuable
- ☐ Know how to code
- ☐ Talk with data scientists about which models to use when

**Correct**

Yes, while a general manager probably is not fluent in all the same concepts as a data scientist, being able to help identify where the investments are working (or might work) is critical. To review, see "Interview: Drew Conway on Data Science."

7. What is something concrete and actionable a product manager or general manager can do to support the data science work?

1 / 1 point

- ☐ Provide input on model selection and inference
- ☒ Frame the dependent variable
- ☐ Ask for regular updates
- ☐ Plan milestones and the work in between

**Correct**

That's right. Your job as an agilist/team lead is, more than anything, to help facilitate focus. Framing the dependent variable for a clear picture of what output is actionable to your team and why helps facilitate focus.

8. You are on the advertising team for a publishing house that recently published a new book. The team is trying to decide how much advertising to do for the book author's tour. Which of the following is the best framing of an actionable analytical question that a data scientist and the data itself could help you answer?

1 / 1 point

- ☐ Is there a relationship between critical reception and book sales?
- ☒ Is there a relationship between ad spending, tour attendance, and book sales?

- ☐ Is there a relationship between ad spending and book sales?
- ☐ Is there a relationship between tour attendance and book sales?

✓ **Correct**

That's right. You and the team are trying to figure out if advertising (and running) a tour with the book author has any effect on book sales, so you need to examine the relationship between all three items.

9. You are on the marketing team for a startup that recently launched a new Bluetooth headphone set. The team is trying to decide how much social media advertising to do. What is one exploratory question you might ask?

1 / 1 point

- ☐ How much are similar products spending on social media advertising?
- ☐ What is the relationship between social media ad spending and customer referrals?
- ☐ Which social media platform is optimal for us to advertise on?
- ☒ What is the relationship between social media ad spending and purchases for similar products?

✓ **Correct**

Yes, a data scientist could work with the data to determine what, if any, relationship exists between social media ad spending and purchases for similar products.

10. When trying to frame a dependent variable, what should the framing align with?

1 / 1 point

- ☒ Revenue for the business
- ☐ Manager intuition
- ☐ Customer demand
- ☐ Market research

✓ **Correct**

That's right. The dependent variable should be a proxy for revenue for the business. To review, see "Interview: Casey Lichtendahl Data Science and You."