Build Your Data Literacy
Ask better questions, make better decisions, and uplevel your career
Data is everywhere and it powers everything we do. As a result, data skills have become life skills and a baseline for success. In a Forrester Consulting study commissioned by Tableau, surveyed recruiters ranked data literacy as the most in-demand skill for job candidates today. Employers want data-savvy candidates. However, according to the Forrester study, only 40% of employees are provided the necessary training creating a huge opportunity for those willing to invest in data skills for themselves.

We created this guide to help remedy the data skills disconnect, helping you ask the right questions, make smarter, faster decisions, and grow your career. It includes an easy-to-follow learning path and resources to help you on your journey to data literacy.

Key Elements for Success

Community Matters

Learning can be challenging, and learning alone can be even more so. A data community provides a safe space for support and sharing. If your organization has an internal community, join it. If not, start one. Tableau and Tableau Blueprint offer guidance on creating an internal community at your organization.

External communities such as the Tableau Community and the Trailblazer Community are additional resources to help you succeed. They are a place to ask questions, accelerate learning, connect with others, and get inspired.
Data Literacy Learning Path

This learning path covers foundational data literacy concepts and includes suggested eLearning modules, readings, videos, exercises to aid learning, and activities to practice and apply the concepts. This learning path can serve as a prerequisite for more advanced topics such as data analytics, data governance, decision making with Artificial Intelligence (AI), or change management topics to create a data culture.

Foundational Data Literacy Learning Path

Commit to learning ➔ How to learn ➔ Data topics ➔ Practice

The first and most important step is to commit to data literacy education, giving the proper time and space to achieve your learning goals. Allow approximately ten to fourteen hours to complete the entire learning path with a pace of 20-30 minutes per day or two to three hours per week over five or six weeks. The timing can be consolidated or stretched to accommodate variable schedules.
How to learn

Data Learning Journal
(5 minutes after each learning session)

Learning, remembering, and using new concepts can be challenging. To deepen learning and help apply concepts, record at least one example from your day-to-day life the same day you engage with the content. This activity can help you reflect on your progress.

Peer mentorship
(60-90 minutes)

Sharing stories with peers can foster encouragement. Learning from and sharing with others who have begun or completed a similar training program can help you overcome challenges and gain inspiration. You can find peer mentors by participating in internal or external learning communities such as the Tableau Community and the Trailblazer Community.

Data topics

Data literacy is the ability to explore, understand, and communicate with data. The objective-based learning plan covers fundamental concepts and allows learners to adapt them to their specific needs. The plan includes the Build Your Data Literacy Trail on Trailhead—a free and fun online learning platform from Salesforce—and a variety of articles and videos.

Build your data literacy trail.
# Data topics learning plan

## Data Literacy Foundation

<table>
<thead>
<tr>
<th>Learning objective</th>
<th>eLearning, articles, and videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define data literacy</td>
<td></td>
</tr>
<tr>
<td>Ask great questions</td>
<td>eLearning: Data Literacy Basics (30 minutes)</td>
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<tr>
<td>Describe how data is collected and types of data sources</td>
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</tr>
<tr>
<td>Describe ethical implications of collecting and using data</td>
<td>Article: Data Ethics for Business (7 minutes) eLearning: Equity and Inclusion Guidelines for Data Visualization (50 minutes)</td>
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</tbody>
</table>

## Understanding with Data

<table>
<thead>
<tr>
<th>Learning objective</th>
<th>eLearning, articles, and videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand how data is structured and organized</td>
<td>eLearning: Well-structured Data (30 minutes)</td>
</tr>
<tr>
<td>Identify types of data</td>
<td>eLearning: Variables and Field Types (20 minutes)</td>
</tr>
<tr>
<td>Learn how different levels of granularity reveal data insights in visualizations</td>
<td>eLearning: Aggregation and Granularity (20 minutes)</td>
</tr>
<tr>
<td>Understand distributions of data</td>
<td>eLearning: Distributions (35 minutes)</td>
</tr>
<tr>
<td>Make comparisons with data</td>
<td>eLearning: Data Literacy Basics review (10 min) eLearning: Variation and Comparisons (40 minutes) eLearning: Correlation and Regression (20 minutes) Article: Cycle of Visual Analysis (7 minutes)</td>
</tr>
<tr>
<td>Make decisions using data</td>
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</tbody>
</table>

## Communicating with Data

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<tr>
<th>Learning objective</th>
<th>eLearning, articles, and videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand best practices for interpreting or creating visualizations</td>
<td>Articles: A Guide to Charts (45-60 minutes) Interactive Dashboard: Visual Vocabulary (60 minutes)</td>
</tr>
<tr>
<td>Identify misleading charts</td>
<td>Article: Misleading Axes on Graphs (20 minutes)</td>
</tr>
<tr>
<td>Interact with data visualizations</td>
<td>Article: Benefits of Interactive Visualization (4 minutes) Activity: Practice Escape Room (30 minutes)</td>
</tr>
<tr>
<td>Understand best practices for data stories</td>
<td>Article: Best practices for telling great stories (10 minutes)</td>
</tr>
</tbody>
</table>
An essential step in learning data skills is to practice using them—which can be the most challenging to achieve. The following activities will help you apply these concepts in your daily work.

**ACTIVITY 1**
**Good Charts/Deficient Charts Activity**
(5 minutes after each learning session)

**Part I—Find charts**
With the data literacy concepts that you are learning in mind, find at least one good and one deficient or misleading chart in your day-to-day life. Look for charts in presentations you encounter in your work, news sources you read, social media posts, or any media that interests you.

**Part II—Critique charts**
Consider why your ‘good chart’ is good and your ‘deficient chart’ is deficient or misleading, referring to specific data literacy concepts.

Optional: Do the activity with a peer. Share your critiques and give each other feedback.

**ACTIVITY 2**
**Apply what you learn to a work project (or topic of interest)**
(allow 90-180 minutes)

In the How to Learn section you were encouraged to keep a data learning journal and record how the concepts apply to your day-to-day activities. As you read your reflections, can your learning be applied to any of your projects? Look for ways in your daily activities to apply your knowledge and share with your peers.

**ACTIVITY 3**
**Share your learning**
As mentioned above, learning alone is hard. The Tableau Community and the Trailblazer Community offer many opportunities to share and learn from people around the world and give back. Share your learning with your community and encourage others to follow your lead. Publishing your badges and sharing portfolios of your work can bring visibility to future employers and inspire your peers.
Resources and references

A Guide to Charts
Benefits of Interactive Visualization
Best practices for telling great stories
Build Your Data Literacy Trail eLearning
Building Data Literacy Forrester study
Cycle of Visual Analysis
Data Ethics for Business
Data Literacy for All eLearning
Do No Harm Guide
Interactivity Practice Escape Room
Misleading Axes on Graphs
Tableau Blueprint
Tableau Community
Trailblazer Community
Visual Vocabulary

For further reading:

*The Big Picture*
Steve Wexler,
McGraw Hill, 2021

*Now You See It*
Second Edition
Stephen Few
Analytics Press, 2020

*Data Literacy Fundamentals*
Ben Jones
Data Literacy Press, 2020

*How Charts Lie*
Alberto Cairo, W.W. Norton and Company, 2019

Contact us:

This resource was created to drive forward our mission to build a better future with free data education.

Have questions? Email us at dataliteracy@tableau.com

We welcome your feedback. Please fill out this short survey to help us better serve you.