Storytelling with Data – Course Syllabus

Course Code: DS6380
Course Designers: Dr. Paul J. Bailo, Dr. Bivin Sadler

Instructor: Dr. Paul J. Bailo
Institution: SMU

Location: 100% online, live sessions take place between 6:30-8:00 pm Central Time on Thursdays
Office Hours: By Appointment/Zoom – Before or After class – Friday Afternoon

Course Description:

This course explores the intersection of data analytics and storytelling, emphasizing how to communicate insights effectively to different audiences. Students will develop skills in business writing, persuasive communication, nonverbal delivery, slide design, and data visualization. Through hands-on projects, students will craft compelling narratives using data and present them in executive settings.

Course Learning Objectives:

By the end of the course, students will be able to:

- Understand why communication is crucial in applied analytics.
- Develop audience-focused business writing and effective presentations.
- Apply storytelling principles to data narratives.
- Use visuals (including Tableau) to enhance data-driven storytelling.
- Master persuasive techniques for executive-level communication.

Required Readings and Resources

Prerequisite:

- **Landit – AI-Powered Communication Training** (www.Landitinterview.ai)
  - Students must complete the **Landit Interview AI training** before Week 1.
  - A discount code will be provided.
  - This tool helps develop structured responses, improve verbal delivery, and refine storytelling techniques—essential skills for effective data storytelling and executive communication (discounted pro code will be shared).
  - **Completion Deadline:** Submit your **Landit completion certificate** or a summary of key takeaways before the first class.

Books by Dr. Paul J. Bailo:

- **The Essential Phone Interview Handbook** – *Paul J. Bailo* (ISBN: 978-1601632261)
  - Covers effective verbal communication, audience engagement, and structured responses—critical for data storytelling and executive presentations
- **The Essential Digital Interview Handbook** – *Paul J. Bailo* (ISBN: 978-1601632858)
  - Provides strategies for mastering digital interviews, improving virtual communication, and making a strong impact in online presentations—highly relevant for remote storytelling and asynchronous communication

Required Texts/Materials:

- Visual Data Storytelling With Tableau Paperback – January 1, 2018, by Lindy Ryan
- Visualize This: The Flowing Data Guide to Design, Visualization, and Statistics (1st Edition) by Nathan Yau

Additional Readings:

- Resonate: Present Visual Stories that Transform Audiences – *Nancy Duarte*
- Made to Stick: Why Some Ideas Survive and Others Die – *Chip & Dan Heath*
- Information is Beautiful – *David McCandless*

Online Videos:

- How to Speak So That People Want to Listen (TED Talk) – Julian Treasure
- The Secret Structure of Great Talks (TED Talk) – Nancy Duarte
- The Best Stats You've Ever Seen (TED Talk) – Hans Rosling

Tableau:

The best way to learn Tableau depends on the individual's learning style and preferred method. Here are some recommended methods to learn Tableau:

1. Official Tableau training: Tableau provides official training courses both online and in-person. These courses are designed to help you learn Tableau at your own pace and provide a comprehensive learning experience.

2. Online Tutorials and Courses: Websites like Udemy, Coursera, and LinkedIn Learning offer courses on Tableau, which can help you understand the basics of the tool and how to use it effectively.

3. Practice: Tableau is a hands-on tool and the best way to learn it is to practice using real data. The more you work with the tool, the more familiar you will become with its features and functions.

4. Tableau Community: The Tableau Community is a great resource for learning Tableau, as well as getting help from other Tableau users. There are also forums and discussion boards where you can ask questions and get feedback on your work.

5. Book and Blogs: There are many books and blogs available on Tableau, which provide detailed information on how to use the tool and best practices for creating effective visualizations.

Tableau Resources:

- https://www.tableau.com/learn/training/20222
- Tableau Full Course - Learn Tableau in 6 Hours | Tableau Training for Beginners | Edureka: https://www.youtube.com/watch?v=aHaOIvR00So&t=4169s
- Tableau in Two Minutes - Tableau Basics for Beginners: https://www.youtube.com/watch?v=jEgVto5QME8

Assignments

Title	Points	Weight	Due
Landit Interview AI Training	100	20	Week 1
Reflective Journal	100	10	Week 14
3-Minute Introduction Video	100	10	Week 1
Follow-Up: Is It Working?	100	10	Week 4
Midterm: Show and Tell the Story	100	20	Week 8
Final Project	100	30	Weeks 14-15

All assignments are to be submitted in Canvas unless otherwise stated.

Reflective Journal

Due: July 31, 5:00 CST

Task: Weekly – Consolidation of all weekly reflective journals is due

Pages: 2 – Total Max

Focus: 1-Page Weekly Class Work Your Own Thoughts + 1-Page Case Summary - what did you like, what did you dislike, what would you change concerning the case

- Reflective writing helps you make personal sense out of the rich, complex, and confusing information you are learning, ideas you are confronting, and people you are meeting.
- As the term implies, this writing is like a mirror, giving you an opportunity to look at your developing self.
- This personal connection increases your motivation, purpose, and involvement by helping you define what you want to learn and speak.
- Reflective Journal encourages you to explore both your thoughts and feelings.

Key Points:

1. Reflective writing is an opportunity to sort through learning, feelings, and experience.
2. Journals provide space for examining your readings and thoughts in great detail, following through on your observations in whichever way strikes you as appropriate. When used as part of a course, journals provide space for examining your thoughts and readings in great detail, to reflect on your personal thoughts, ideas, and assumptions.
3. Reflective Journal will help me respond to your ideas.

Questions to Think About:

- What people, ideas, courses, readings, or other experiences have made you think new thoughts or wonder about new ideas?
- When and where do you think about these new experiences, thinking, and feelings?
- Be open and honest with your thoughts.

Rubric

- Depth of Reflection (20 points)
- Engagement with Course Content (20 points)
- Personal Connection and Critical Thinking (20 points)
- Clarity, Organization, and Writing Quality (20 points)
- Adherence to Guidelines (10 points)
- Creativity and Originality (10 points)

3-Minute Introduction Video

Due: May 1, 5:00 PM CST

Objective: This assignment is designed to help you create a compelling and professional 3-minute introduction video that highlights your background, skills, and aspirations. The goal is to present yourself confidently and concisely while engaging your audience effectively.

Instructions:

Part 1: Preparation (Planning Your Video)

Before recording your video, take time to plan and outline what you want to share. Your video should include the following:

1. **Introduction (30 seconds)**

   - State your full name

   - Provide a brief background (where you are from, current location, education, or profession)

   - Mention a personal or professional passion

2. **Your Background and Experience (1 minute)**

   - Discuss your career journey or academic experience

   - Highlight key accomplishments, skills, or experiences

   - Share what motivates or inspires you in your field

3. **Your Future Goals (1 minute)**

    - What are your short-term and long-term aspirations?

    - How do your skills and experience align with these goals?

    - Where do you see yourself in 5–10 years?

4. **Closing and Call to Action (30 seconds)**

    - End with a strong statement about your professional brand

    - Optionally, invite viewers to connect with you (social media, LinkedIn, email, etc.)

Part 2: Recording Your Video

Use a high-quality camera or smartphone in landscape mode. Ensure you have good lighting and minimal background noise. Maintain eye contact with the camera and speak clearly. Use a professional or neutral background. Keep your tone natural and engaging.

Part 3: Submission Guidelines

- Length: Maximum of 3 minutes
- Format: MP4, MOV, or YouTube/Vimeo link
- Submission: Upload to Canvas

Grading Criteria (100 points total):

- Content and Structure (40 points) – Does the video cover all required elements in a clear and structured way?
- Presentation and Delivery (30 points) – Is the speech clear, confident, and engaging?
- Visual and Audio Quality (20 points) – Is the video well-lit, with good sound and minimal distractions?
- Creativity and Authenticity (10 points) – Does the video reflect personality and originality?

Bonus Tips for Success:

Practice your speech a few times before recording. Use bullet points instead of memorizing a script to sound natural. Keep your energy high and use positive body language. Review your video for clarity and confidence before submitting it.

Follow-up: Is It Working?

Due: May 22, 5:00 CST

Submission guidelines and grading criteria are the same as the 3-minute introduction video.

Please record a new video in the following format:

[Opening - 30 seconds]
"Hello, my name is [Your Name], and I am [your profession, student, or role]. I currently live in [your location] and have a background in [your field of study or work]. Ever since [mention an event or experience that sparked your interest], I've been passionate about [your main interest or professional focus]. I believe in continuous learning, innovation, and making a meaningful impact in everything I do."

[Background & Experience - 1 minute]
"I have experience in [mention key areas of expertise, such as marketing, finance, technology, etc.]. Over the past [number] years, I've worked on [highlight a key project, role, or achievement]. One of the most rewarding experiences was [briefly describe a significant accomplishment, challenge, or learning moment]. This experience helped me develop skills in [mention relevant skills, such as leadership, problem-solving, data analysis, or communication], which I apply to my work every day."

[Future Goals - 1 minute]
"Looking ahead, I am excited about the opportunity to [mention your short-term goal, such as advancing in a particular career, learning a new skill, or contributing to a specific industry]. In the long run, I aspire to [mention a long-term goal, such as becoming a leader in your field, launching your own company, mentoring others, etc.]. I'm always seeking ways to grow, collaborate with like-minded individuals, and create positive change."

[Closing & Call to Action - 30 seconds]
"Thank you for taking the time to learn a little about me. If you'd like to connect, feel free to reach out on [mention LinkedIn, email, or another professional platform]. I look forward to meeting new people, sharing ideas, and exploring opportunities together!"

Midterm: Show and Tell the Story

Due: May 19, 5:00 CST

Goal: Infographic – 1 page

Video Presentation: 3 minutes

Craft an infographic that displays the results of your analytic work in a way that is:

1. Accessible
2. Engaging
3. Exciting for a consumer audience.

Infographics should be submitted via CANVA (recommended) slide or a 1-page pdf.

Video Story: 3-Minute Video Showcasing Your Infographic

Evaluation: Infographic/video presentation should be clear and appealing; should demonstrate creative use of graphics and design, provide a clear and obvious takeaway for the consumer that supports the company goals; and deliver accurate information and analytical results.

Grading Criteria (100 points total):

- Clear, persuasive, appealing: 15 points
- Memorable takeaway message: 15 points
- Broad social media audience: 15 points
- Supports organizational goals: 15 points
- Demonstrates creative thinking: 40 points

Final Project

Due:

- Submit presentation materials by July 31, 5:00 CST
- Presentations will take place during the Weeks 14-15 live sessions

Goal:

- C-Level "Storytelling" Video Presentation (4 to 5 minutes)
- Tableau Dashboard
- Presentation slides: 10

Project:

- Identify a Company/Organization
- Suggest a "Radical" Transformation and Tell the Story Using Data

Example:

- Fedex Being in the Personal Airline Business
- Citbank ATM Offices – Homeless Shelters
- Perdue: Chicken eggs being hatched on the truck going to market

Data: You will need to find the data

Tableau:

- Executive Dashboard to help you tell the story
- Evaluate Data Sets Using Tableau

Notes:

- Crafted for the analytic and marketing audiences in order to construct and deliver a persuasive, powerful presentation to an imagined C-suite audience.
- This presentation should tell the story of an analytical project being "pitched" to engage the CEO and convince him/her that further investment is required in your transformational story. Convincing your C- level organization executives - it is the rightmove for the organization. Leverage data in your story to make your story powerful. Create and deliver a presentation of 4 to 5 minutes and up to 10 slides for the top people in the organization.
- Include in the data dashboard applying the concepts and strategies we have discussed in class.
- Create a powerful story that drives radical change supported by data.
- Canva (recommended) for slides.

Assignments will be graded on audience-centered framing, effective use of structure (storytelling, problem-solution, call to action), and appropriate use of visuals.

Grading Criteria (100 points total):

- Clear, persuasive, appealing: 20 points
- Memorable takeaway message: 20 points
- Appropriate for a broad social media audience: 10 points
- Supports organizational goals: 10 points
- Demonstrates creative thinking: 40 points

Course Schedule

Week 1: Why Communication Is Important to Applied Analytics

Understand the role of storytelling in data-driven decision-making and why effective communication enhances business impact. Learn how analytics professionals translate numbers into compelling narratives.

📖 *Readings:*

- Communication Skills for Data Analysts
- How Data Analysts Can Communicate Effectively with Team Members
- Comprehensive Guide: How to Communicate Data Insights to Business Stakeholders
- The Essential Phone Interview Handbook - Chapter 1
- The Essential Digital Interview Handbook - Section 1 to 5
- Visual Data Storytelling with Tableau - Chapter 1
- Visualize This - Chapter 1

🎥 *Videos:*

- Why storytelling is more trustworthy than presenting data | Karen Eber | TEDxPurdueU
- The beauty of data visualization: https://www.ted.com/talks/david_mccandless_the_beauty_of_data_visualization?language=en

Assignments:

- Landit AI Interview Training
- 3-Minute Introduction Video

Week 2: Effective Business Writing With Audience Analysis

Learn to craft audience-specific business writing that is clear, concise, and engaging. Explore how understanding stakeholders enhances message effectiveness and business outcomes.

📖 *Readings:*

- [The Significance of Audience Analysis in Business Writing](#)
- [Understanding Your Audience in Business Writing](#)
- [Chapter 2: Audience – Strategies for Effective Business Communication](#)
- The Essential Phone Interview Handbook - Chapter 2
- The Essential Digital Interview Handbook -Section 6 to 10
- Visual Data Storytelling with Tableau - Chapter 2
- Visualize This - Chapter 2

🎥 *Videos:*

- Business Communication Essentials - Video Training Course | John Academy: https://www.youtube.com/watch?v=HO5J62RwFVw
- The best stats you've ever seen: https://www.ted.com/talks/hans_rosling_the_best_stats_you_ve_ever_seen?language=en

Week 3: Principles of Persuasion and Brief Proposals

Examine the principles of persuasion and their application in data-driven proposals. Learn techniques for making proposals more compelling and impactful for business decision-makers.

📖 *Readings:*

- [The Science of Persuasion](#)
- [How to Use Data and Insights to Fuel Communications](#)
- [Effective Strategic Business Writing in Today's World Needs a People-First Approach](#)
- The Essential Phone Interview Handbook - Chapter 3
- The Essential Digital Interview Handbook - Section 11 to 20
- Visual Data Storytelling with Tableau - Chapter 3
- Visualize This - Chapter 3

🎥 *Videos:*

- [The Science of Persuasion](#) - https://www.youtube.com/watch?v=cFdCzN7RYbw
- How we can find ourselves in data: https://www.ted.com/talks/giorgia_lupi_how_we_can_find_ourselves_in_data?language=en

Week 4: Analyze Before You Speak

Learn to research, structure, and tailor messages effectively. Understand how audience analysis improves communication clarity and persuasiveness in professional settings.

📖 *Readings:*

- [Audience Analysis - Communication](#)
- [Understanding Your Audience: The Key to Effective Business Writing](#)
- [Audience Analysis](#)
- The Essential Phone Interview Handbook - Chapter 4
- The Essential Digital Interview Handbook - Section 21 to 25
- Visual Data Storytelling with Tableau - Chapter 4
- Visualize This - Chapter 4

🎥 *Videos:*

- How to Analyze an Audience for Public Speaking:
  https://www.youtube.com/watch?v=hYLo4xcBy6c

- How your brain responds to stories -- and why they're crucial for leaders:
  https://www.ted.com/talks/karen_eber_how_your_brain_responds_to_stories_and_why_they_re_crucial_for_leaders?language=en

Assignment:

- Follow-up: Is It Working?

Week 5: Nonverbal and Verbal Communication Delivery

Explore the impact of tone, pacing, gestures, and body language in storytelling. Master techniques to engage and influence your audience effectively.

📖 *Readings:*

- The Essential Phone Interview Handbook - Chapter 5
- The Essential Digital Interview Handbook - Section 26 to 30
- Visual Data Storytelling with Tableau - Chapter 5
- Visualize This - Chapter 5

🎥 *Videos:*

- The Power of Nonverbal Communication | Joe Navarro | TEDxManchester:
  https://www.youtube.com/watch?v=fLaslONQAKM&t=456s

- The clues to a great story:
  https://www.ted.com/talks/andrew_stanton_the_clues_to_a_great_story?language=en

Week 6: Slide Design and Presentation Prep

Develop visually appealing slides that support storytelling. Learn best practices to enhance message clarity while avoiding common design mistakes.

📖 *Readings:*

- The Essential Phone Interview Handbook - Chapter 6
- The Essential Digital Interview Handbook - Section 31 to 35
- Visual Data Storytelling with Tableau - Chapter 6
- Visualize This - Chapter 6

🎥 *Videos:*

- How to Make Your PowerPoint Slides Engaging!: https://www.youtube.com/watch?v=FoMutvcGHZA
- Telling Stories with Data in 3 Steps (Quick Study): https://www.youtube.com/watch?v=r5_34YnCmMY

Week 7: The Storytelling Process

Discover storytelling frameworks like the hero's journey and how to structure business narratives effectively for maximum audience impact.

📖 *Readings:*

- The Essential Phone Interview Handbook - Chapter 7
- The Essential Digital Interview Handbook - Section 36 to 40
- Visual Data Storytelling with Tableau - Chapter 7
- Visualize This - Chapter 7

🎥 *Videos:*

- The clues to a great story | Andrew Stanton | TED: https://www.youtube.com/watch?v=KxDwieKpawg
- The Fallen of World War II: https://www.revealbi.io/glossary/data-driven-storytelling

Week 8: Demonstration and Discussion of the CMO Storyboards

Analyze real-world Chief Marketing Officer (CMO) storyboards. Understand how data storytelling influences marketing strategies and business success.

📖 *Readings:*

- The Essential Phone Interview Handbook - Chapter 7
- The Essential Digital Interview Handbook - Section 41 to 45
- Visual Data Storytelling with Tableau - Chapter 8
- Visualize This - Chapter 8

🎥 *Videos:*

- Marketing Storytelling: How to Craft Stories That Sell And Build Your Brand: https://www.youtube.com/watch?v=guMfpGwZrZc
- Data storytelling: Adding meaning to metrics: https://sproutsocial.com/insights/storytelling-with-data/

Assignment:

- Midterm

Week 9: Frame the Story – Consumers and Infographics

Learn how to create compelling infographics and use data visualization techniques to enhance consumer-focused storytelling.

📖 *Readings:*

- The Essential Digital Interview Handbook - Section 46 to 50

- Visual Data Storytelling with Tableau - Chapter 9

- Visualize This - Chapter 9

🎥 *Videos:*

- How to Make an Infographic in 5 Steps [INFOGRAPHIC DESIGN GUIDE + EXAMPLES]: https://www.youtube.com/watch?v=uQXf_d5Mgjg
- 4 Foundational Tactics for Better Visual Data Storytelling: https://www.youtube.com/watch?v=MZf5YTdSRnE

Week 10: The Psychology of Storytelling

Explore the neuroscience behind storytelling and why humans respond better to narratives than raw data.

📖 *Readings:*

- The Essential Digital Interview Handbook - Section 50 to 55
- Visual Data Storytelling with Tableau - Chapter10

🎥 *Videos:*

- [The Neuroscience of Storytelling](https://www.youtube.com/watch?v=DHeqQAKHh3M) - https://www.youtube.com/watch?v=DHeqQAKHh3M
- Storytelling with Data: How McKinsey creates million dollar charts and presentations: https://www.youtube.com/watch?v=C-cJj9S4e2c

Week 11: Presentation Prep and Delivery/Asynchronous Communication Ethics

Prepare for effective data storytelling presentations. Understand asynchronous communication ethics and how to maintain clarity and credibility in remote and virtual settings.

📖 *Reading:*

- The Essential Digital Interview Handbook - Section 56 to 66

🎥 *Videos:*

- [Effective Virtual Communication](https://www.youtube.com/watch?v=HAnw168huqA) - https://www.youtube.com/watch?v=HAnw168huqA
- How McKinsey, Bain and BCG create compelling presentations: https://www.youtube.com/watch?v=HnlWiVs9P5o

Week 12: Effective Visuals – Tableau

Learn how to use Tableau to create compelling visuals for data storytelling. Discover best practices for dashboards, charts, and interactive visualizations.

🎥 *Videos:*

- Present to Persuade: Storytelling with Data Viz:
  https://hbr.org/webinar/2018/03/present-to-persuade-storytelling-with-data-viz
- Data Storytelling with Tableau Story Points:
  https://www.youtube.com/watch?v=sY0vnrdodsg

Week 13: Executive Presentations

Develop skills for presenting data insights to executives. Learn how to tailor your storytelling to senior leadership for impactful decision-making.

🎥 *Videos:*

- Coach for Executive Presence: https://hbr.org/video/2235499274001/coach-for-executive-presence
- How to Design Engaging Data Stories in Tableau: https://www.youtube.com/watch?v=6VBGkpfTKqs

Week 14: Final Presentations/Course Summary

Deliver final storytelling presentations incorporating all course concepts. Receive feedback and refine your data storytelling approach.

🎥 *Videos:*

- Delivering a Powerful Presentation - https://www.youtube.com/watch?v=-FOCpMAww28
- Storytelling with Tableau - David Millrod from Insight Rocket: https://www.youtube.com/watch?v=Roq3QINTFMg

Assignments:

- Reflective Journal
- Final Project

Week 15: Final Presentations/Reflection and Key Takeaways

Present remaining final projects. Reflect on storytelling strengths, areas for growth, and future applications of course learnings.

🎥 *Video:*

- How to end a presentation: https://chatgpt.com/c/67a7e4e2-a730-800c-b9fa-030ea02ac1cc

Assignment:

- Final Project

Student Resources and Services

Disability Accommodations (DASS)

Southern Methodist University is committed to providing reasonable accommodations for students with documented disabilities.

If you need academic accommodations based on a disability, please contact Disability Accommodations and Success Strategies (DASS) as soon as possible.

Website: https://www.smu.edu/Provost/ProvostOffice/DASS

Email: dass@smu.edu

Phone: 214-768-1470

Technical Support (OIT, Canvas, Zoom, Panopto)

SMU's Office of Information Technology (OIT) provides technical support for Canvas, Zoom, Panopto, email, and SMU network systems.

- Canvas access and troubleshooting (assignments, discussions, quizzes)

- Zoom session support and recording access

- Panopto video streaming and upload help

- Microsoft Teams, Outlook, and Duo authentication support

Contact OIT:

Website: https://www.smu.edu/OIT

Help Desk: 214-768-HELP (4357)

Email: help@smu.edu

Academic Support Services

Student Resources and Services

SMU offers a variety of academic support services to help you succeed:

- Altshuler Learning Enhancement Center (A-LEC): Tutoring, academic coaching, workshops.
  Website: https://www.smu.edu/Provost/ProvostOffice/SAES/StudentAcademicSuccessPrograms/LEC

- SMU Writing Center: One-on-one help with writing assignments.
  Website: https://www.smu.edu/Dedman/Academics/Institutes-and-Centers/SMU-Writing-Center

- Fondren Library Research Help: Assistance finding and citing academic resources.
  Website: https://www.smu.edu/Libraries/Fondren/Research

Generative AI Policy

Use of Generative AI tools (such as ChatGPT or others) in this course is restricted to assignments where explicit permission is given.

Unauthorized use of AI-generated content for assignments, projects, or exams may be considered academic misconduct under SMU policies.

Always cite and disclose any AI assistance if permitted by assignment guidelines.

Religious Observance Policy

Students who need to miss class for religious holidays should notify their instructor during the first two weeks of the semester.

Reasonable accommodations will be made for students to complete coursework missed due to religious observance.

Honor Code

Student Resources and Services

All students are bound by the SMU Honor Code, which promotes academic integrity and ethical behavior.

Honor Code Details: https://www.smu.edu/StudentAffairs/StudentLife/StudentHandbook/HonorCode

Violations such as cheating, fabrication, and facilitating dishonesty will be addressed through formal disciplinary procedures.

Plagiarism Policy

Plagiarism is representing someone else's work or ideas as your own without proper attribution.
This includes direct copying, insufficient paraphrasing, or using AI tools to generate work without citation.

Students found guilty of plagiarism may face penalties ranging from failing the assignment to suspension from the university.
Always cite your sources appropriately.