

Module 4. Communication and presentation

The success of a data analysis project ultimately depends not on the statistical methods', sophistication or the complexity of the models, but on how effectively the insights are communicated to decision-makers. In this module, we explore the art and science of presenting analytical results in ways that drive understanding, engagement and action.

Effective communication and presentation of data analysis is essential for the following reasons.

1. Drives decision-making

Even the most sophisticated analysis is worthless if stakeholders cannot understand and act on it.

For example, a retail chain's analysis of customer behavior patterns only led to meaningful changes in store layout and inventory management after the data science team created clear visualizations showing peak shopping hours and product placement effectiveness.

2. Builds trust and credibility

Clear presentation demonstrates mastery of the subject and builds confidence in your recommendations.

Consider how a healthcare analytics project showing hospital readmission rates gained widespread adoption only after presenting the findings through interactive dashboards that clinicians could easily explore.

3. Facilitates understanding

Complex data needs to be distilled into insights that resonate with different audiences.

A manufacturing company's yield optimization project succeeded because the team created different versions of their presentation - technical details for engineers, cost implications for finance, and high-level insights for executives.

Unit 4.1 Effective ways to communicate results

Here are some key considerations to effectively communicate results.



4.1.1 Understanding your audience

The first step in effective communication is knowing who you are talking to. Are they business executives, or are they a group of engineers, or are they customers of your product? These three groups are all very different and require you to communicate differently.

4.1.1.1 Types of stakeholders

Different stakeholders require different approaches.

1. Executive leadership.

Decision-makers operate under unique constraints and priorities. They need to:

- make informed decisions quickly,
- justify decisions to various stakeholders,
- understand implications across different business units.

For the executive leaders, the communication should:

- focus on strategic implications,
- emphasize ROI and business impact,
- present clear, actionable recommendations.

2. Technical teams, fellow data people.

- Include methodology details.
- Discuss limitations and assumptions.
- Provide access to underlying data and code.

3. Operations teams.

- Emphasize practical implementation.
- Include detailed process changes.
- Provide concrete examples.

4. External stakeholders and customers/users.

- Focus on high-level benefits.



- Use industry-standard terminology.
- Address potential concerns proactively.

4.1.2 Structure your communication

4.1.2.1 The executive summary

Every presentation should begin with a clear executive summary that answers the following.

- What was the business question?
- What are the key findings?
- What actions should be taken?
- What are the expected outcomes?

Example executive summary:

"Our analysis of customer churn reveals that a 20% reduction in response time to customer inquiries could reduce churn by 15%, potentially saving \$2.4M annually. We recommend implementing automated response systems and increasing support staff during peak hours."

4.1.2.2 The narrative structure

Tell a story: structure your presentation with a clear narrative arc.

Compelling data stories follow a clear structure.

1. Set the context first

- Lay out the business context and background at the start of the presentation.
- Enumerate the current situation and challenges.
- List out the objectives of the analysis – clearly state the goals and “non-goals” of the analysis. Describing what is out of scope is one of the most underrated parts of presenting an analysis.

For example, suppose you are analyzing goals and expected goals of a Premier League season. Your dataset is limited to shots, goals, and xG from a specific season in the Premier League. In that case, it is not within the scope to draw conclusions about the



year-to-year trend of scoring goals or try to predict the goals-to-expected goals ratio in all the leagues worldwide.

2. Methodology overview

- **Data sources and quality.** Briefly describe the data sources used and the data quality. More importantly, if there are any caveats or limitations on the data quality, this will help set the right expectations regarding what to expect in the analysis outputs.
- **Analysis approach**
 - Describe in detail the analysis approach used.
 - Statistical methods employed and why you chose one method over the others.
 - List out all the critical assumptions you made in your approach to the problem solution.

3. Findings and insights

- Key findings. Summarize the key findings and tie them back to the objectives of the analysis.
- Present your analysis and how you arrived at your conclusions with supporting evidence.
- Most analyses tend to throw some unexpected results. Acknowledge the unexpected results and either give a plausible explanation with caveats or be honest that they were unexpected and further investigation is needed to understand them.

4. Recommendations

- Suggest 2-4 specific actions based on the analysis. Clearly explain why and how the recommendations help.
- Explain the expected outcomes of implementing the recommendations. Probabilities and a range of possibilities are effective ways to achieve this.

5. Next steps

- Implementation timeline. For every suggestion, present a detailed plan for implementing or "bringing them online." Include expected timelines and the potential risks.



- Estimate the resources required.
- List out the success metrics to track post-implementation of the recommendations.

4.1.2.3 Data visualization best practices

Match your data type with appropriate visual representations and your message. This is a list of some of the standard analyses and messages we convey using visuals and what are the best-suited visual types to achieve the objective.

1. Trends over time, time series

- Line charts
- Area charts
- Sparklines for compact views

2. Comparisons, rankings in ascending/descending orders

- Bar charts
- Dot plots
- Heat maps

3. Relationships – 2 dimensional (X-Y), three-dimensional (X-Y, size), four-dimensional (X-Y, size, color), and so on

- Scatter plots
- Bubble charts
- Network diagrams

4. Composition

- Stacked bar charts
- Treemaps
- Pie charts

Once you choose the most suitable viz type, pay attention to the design, the fonts, the colors, etc.



4.1.2.4 Design principles

1. Clarity of message is always the priority.

- **Remove chart junk:** reduce decorative and superfluous elements that do not add to the chart's message.
- **Use consistent colors:** this is very important to keep the story consistent and avoid the audience having to look at color legends in every slide or visual.
- **Label directly when possible:** looking up legends and relating what is what is much cognitive work. As long as you are not sacrificing the readability and clarity of the visual, label dots, lines, etc., directly.
- **Include clear titles and axis labels:** this will ensure the audience knows exactly what they are looking at and eliminates having to go back to link to a paragraph where you described the visual.

2. Accessibility

According to the most recent estimates, around 15 – 20 % of the world's population has some form of disability that might require digital accessibility considerations. 2.2 billion people have some form of visual impairment. Approximately 1-2% use screen readers.

- **Use colorblind-friendly palettes.** This is very important because around 4.5% of the world's population have color blindness.
- **Include alternative text.** Captions for all video content and transcripts for all audio content + alt text for images.
- **Provide data tables when appropriate.**

3. Interactivity

Interactivity helps a more profound understanding of the subject. The audience can quickly find answers to some simple and common questions instead of asking them to look them up elsewhere or ignore them because it requires cognitive effort.

- **Allow drilling down into details.** Every visual or screen needs to have a clear message without any clutter but provide links to drill down further into another such visual that addresses a specific question.



- **Enable filtering and sorting.** This is self-explanatory. Filtering and sorting are two of the most fundamental and powerful functionalities to enhance our understanding of a dataset and are key to increasing audience interaction with the visuals/dashboards.
- **Provide tooltips for additional context.** This usually adds a quick bit of context manually or in a custom column from the backend. This is not meant to cramme in more structured data. Ensure the tooltips aren't too long and rendered correctly in different screen sizes.

4.1.3 Presentation strategies

Next, we look at some strategies to enhance the presentation of data and analyses in various settings.

4.1.3.1 In-person presentations

1. Preparation.

- **Know your audience.** This is universal rule #1 for any presentation mode. Always know who the audience is and tailor the presentation to them.
- **Anticipate questions.** This is more specific and acute to in-person presentations; you don't want to say "I will get back to you" for too many questions. You cannot answer every question, but you have demonstrated that you can answer most of them.
- **Test all technology.** This is a must. Arrive at the presentation venue early and test all your technology – laptop, slide clicker, audio and video playing through the venue speakers instead of your laptop speakers, etc. One of the things I always do is reboot my laptop before testing the tech and have only the programs I need for the presentation open. No email, slack, etc., popping up during a presentation
- **Have backup plans.** Sometimes, technology fails despite all your preparation and precautions. Have backup plans, like having a copy of the presentation on a flash drive to switch computers. Or have a pared-down version of the presentation if the internet fails or you are in a low-bandwidth facility.

2. Delivery

The best content is useless if the delivery isn't practical. Here are some ways to make delivery effective.



- **Start with the conclusion.** This will satisfy the audience's curiosity instead of waiting until the end of the talk for findings. Enhances the engagement with the presentation.
- Use **storytelling** techniques by starting with a narrative and then using examples to enhance the understanding.
- **Leave time for discussion.** Always leave time for discussion. This ensures the audience will retain much more information from the presentation than if there isn't time for discussion. Sacrifice the length of the presentation by skipping some slides out if you feel like there will not be enough time left for discussion.

3. Follow-up

Provide documentation and additional information at the end. Provide ways for the audience to reach out if they have questions. Schedule follow-up meetings and always be available to answer questions.

4.1.3.2 Written reports

Written communication is another essential form of communication.

The biggest challenge to overcome in written communication is that it is asynchronous. You are not present to answer questions when the audience chooses to read the report.

Here are some key aspects to remember to make written reports compelling.

1. Structure

- A clear hierarchy of information
- Executive summary first
- Supporting details in appendices
- Clear section headings

2. Content

- Concise writing
- Active voice
- Clear recommendations
- Visual aids



3. Format

- Professional design
- Consistent formatting
- Easy navigation
- Printer-friendly

4.1.4 Common pitfalls to avoid

In this section, we look at some common issues most people encounter. A majority of them are easily fixable.

1. Information overload

- Too many visualizations.
- Excessive technical details.
- Cluttered slides.
- Long, complex sentences.

One visual, one message on one screen or view.

Allow for drill-downs where applicable, but stick to this principle to avoid cramming too much information into a single view.

2. Poor context

- Jumping into details too quickly.
- Assuming background knowledge.
- Not connecting to business goals.

Always stay connected and keep hierarchy within the overall narrative

Err on using extra summary slides, but ensure the flow is logical from page to page. A simple trick to achieve this is to just read the titles of slides in a presentation together and see if they follow a logical flow.

3. Weak recommendations



- Vague next steps.
- Missing implementation details.
- Unrealistic timelines.

Fewer and more impactful recommendations are always better than having a lot but being vague

4. Technical mistakes

- Misleading visualizations.
- Statistical errors.
- Unexplained jargon.

This is very much in the author's control. To avoid technical mistakes, thoroughly review spell checks, grammar checks, and formatting reviews.

Unit 4.2 Case study

We will now do a case study to demonstrate how to communicate a data analysis project's results effectively.

4.2.1 Shots and xG data from module 4.3

Let's use the output of the xG model we created in module 4.3. The out file has close to 7400 shots with the following columns.

- Shot metadata
- Predicted xG
- Match, team, league and season information

We will analyze the Premier League 2015/2016.

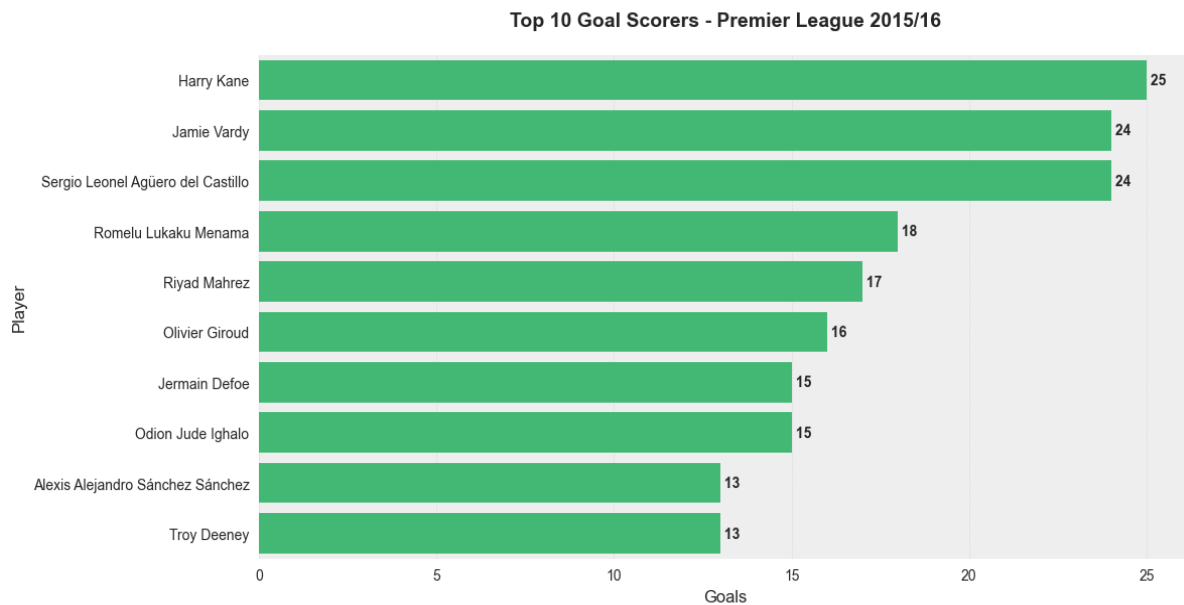
4.2.2 Objectives

- Summarize the shots, goals, and xG data from the 2015/2016 season.
 - Top goal scorers
 - Top xG scorers



- Who took most shots
- xG vs. actual goals
 - Player level
 - Team level

Figure 1. Top 10 goal scorers of the 2015-16 Premier League Season



Top 10 Goal Scorers - Detailed Statistics

| Player | Goals | xG | Shots | Conv. Rate (%) |
|-----------------------------------|-------|------|-------|----------------|
| Harry Kane | 25 | 22.5 | 158 | 15.8 |
| Jamie Vardy | 24 | 22.3 | 118 | 20.3 |
| Sergio Leonel Agüero del Castillo | 24 | 18.1 | 118 | 20.3 |
| Romelu Lukaku Menama | 18 | 18.6 | 116 | 15.5 |
| Riyad Mahrez | 17 | 12.1 | 87 | 19.5 |
| Olivier Giroud | 16 | 14.7 | 103 | 15.5 |
| Jermain Defoe | 15 | 14.4 | 88 | 17.0 |
| Odion Jude Ighalo | 15 | 17.8 | 111 | 13.5 |
| Alexis Alejandro Sánchez Sánchez | 13 | 12.3 | 111 | 11.7 |
| Troy Deeney | 13 | 12.6 | 94 | 13.8 |

Source: own elaboration.

- Clean visual representation.
- The bar chart has the players ranked in descending order.
- The table summarizes the data, adding more context with xG, shots, and the shots to the goal conversion rate of the players.

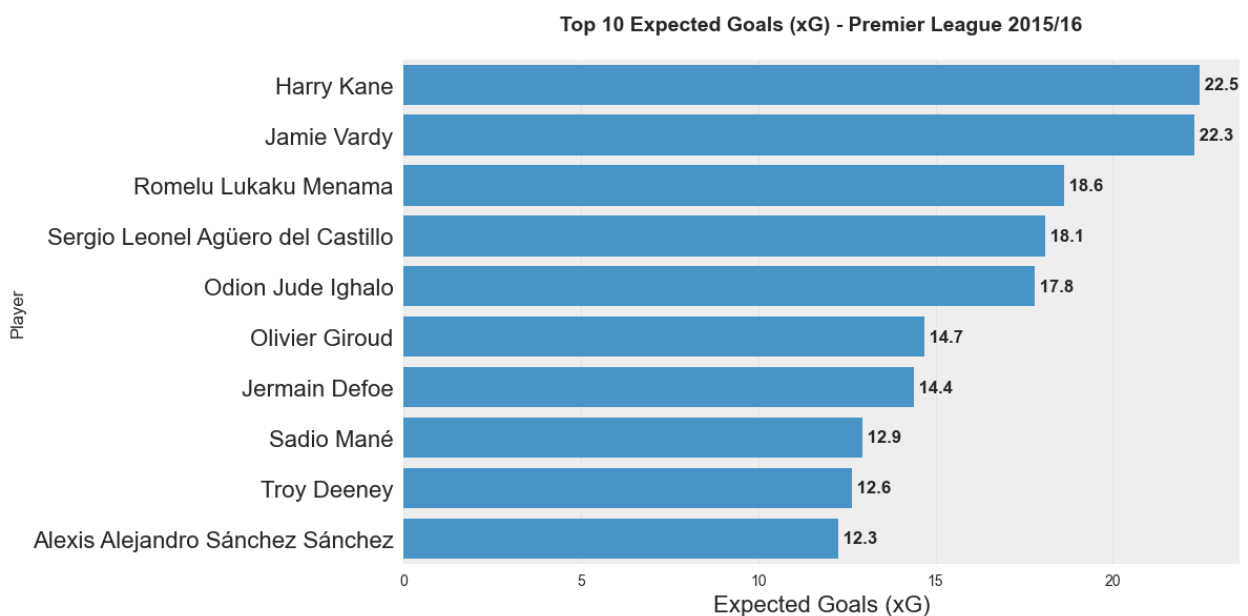


- You can glean from the table that while Harry Kane scored one more goal than Jamie Vardy and Aguero, Vardy and Aguero were almost 30% more efficient at converting their chances than Kane.
- Furthermore, if you peruse the xG and Goals columns, Aguero and Mahrez outperformed xG most, and Ighalo is the only one that underperformed xG.

What are a couple of improvements we can make to these visuals?

- Left justify the names in the table.
- Maybe increase the font size in the table.
- Increase the font size of the names in the graph.

Figure 2. Top 10 xG in the 2015-16 Premier League season



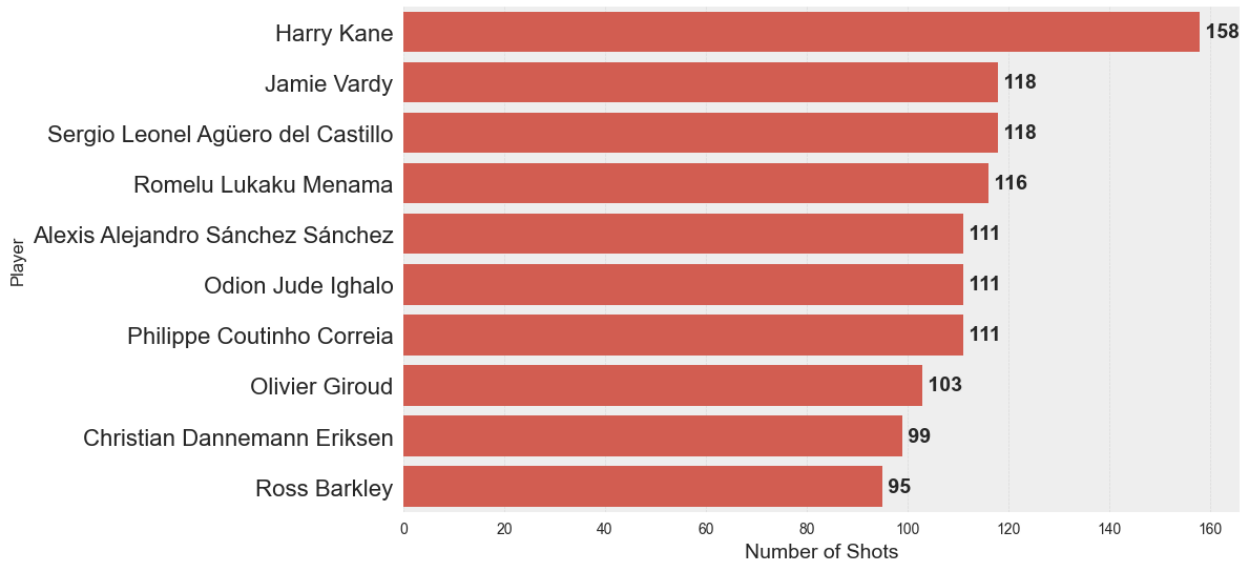
Source: own elaboration.

- If you notice, I have increased the font size of the player name compared to the last plot, and this makes it more readable

Figure 3. Top shot takers in 2015-16 Premier League Season



Top 10 Shot Takers - Premier League 2015/16



Top 10 Shot Takers - Detailed Statistics

| Player | Shots | Goals | xG | xG per Shot |
|--|-------|-------|------|-------------|
| Harry Kane | 158 | 25 | 22.5 | 0.14 |
| Jamie Vardy | 118 | 24 | 22.3 | 0.19 |
| Sergio Leonel Agüero del Castillo | 118 | 24 | 18.1 | 0.15 |
| Romelu Lukaku Menama | 116 | 18 | 18.6 | 0.16 |
| Alexis Alejandro Sánchez Sánchez | 111 | 13 | 12.3 | 0.11 |
| Odion Jude Ighalo | 111 | 15 | 17.8 | 0.16 |
| Philippe Coutinho Correia | 111 | 8 | 7.7 | 0.07 |
| Olivier Giroud | 103 | 16 | 14.7 | 0.14 |
| Christian Dannemann Eriksen | 99 | 6 | 5.4 | 0.05 |
| Ross Barkley | 95 | 8 | 8.9 | 0.09 |

Source: own elaboration.

Further improvements to formatting:

- Increased font sizes.
- Left alignment of names in the table + bold font face.

All these might seem minor improvements, but they make a massive difference in terms of the readability of a presentation.

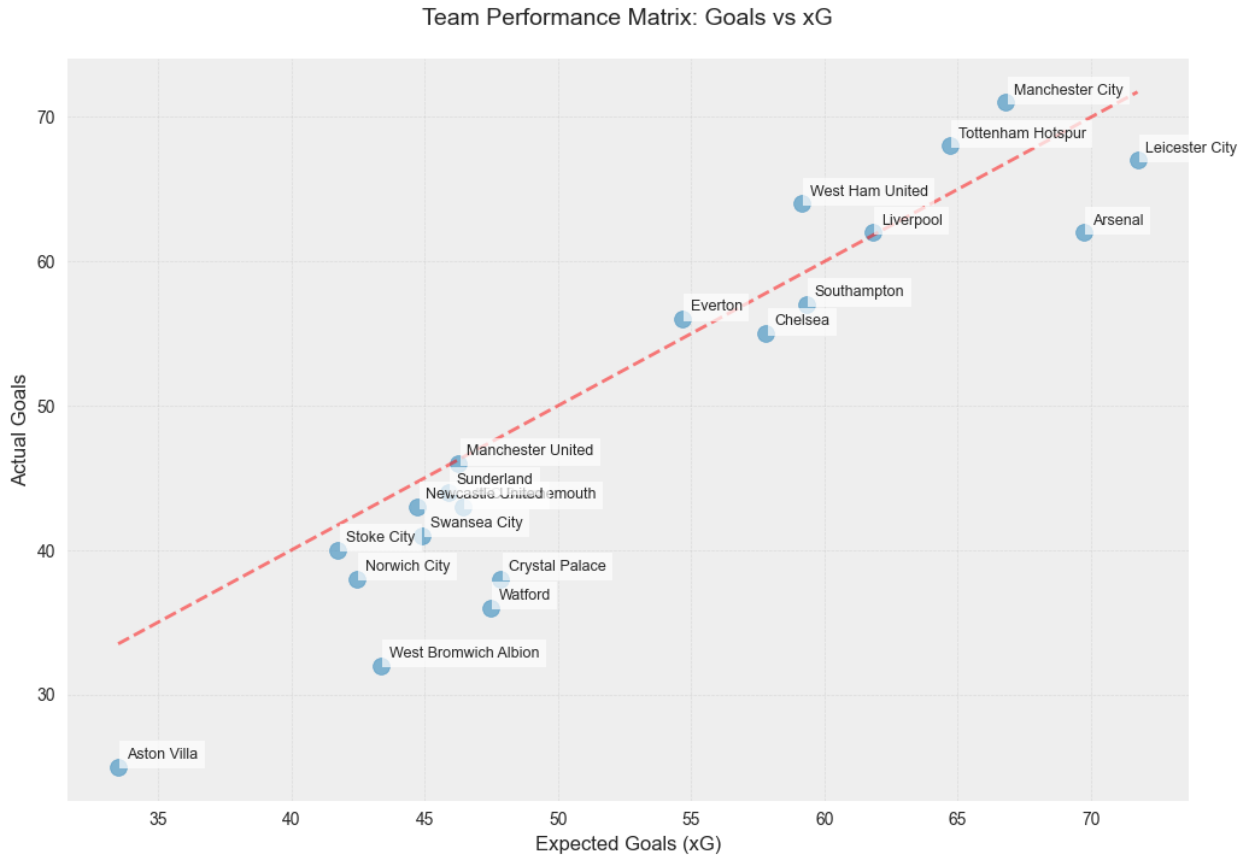
Analysis points

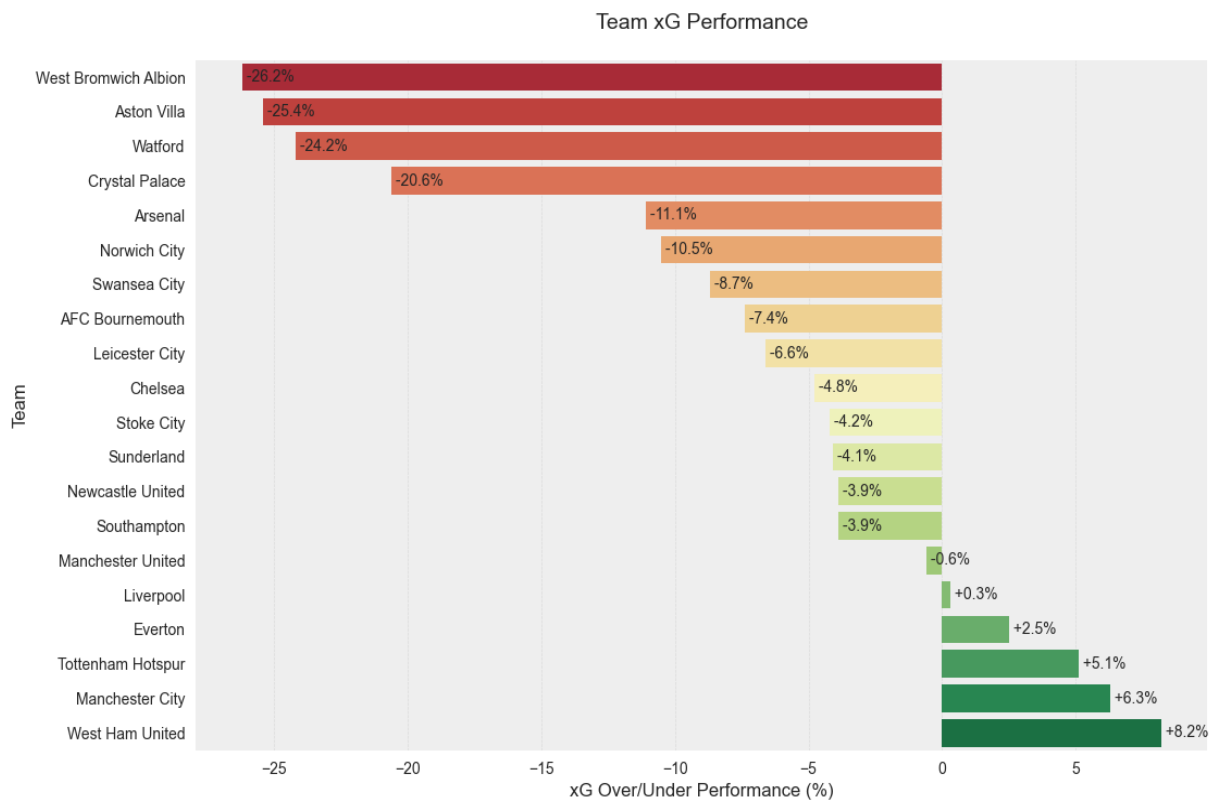
- I added xG per shot column to the table to add some additional context.
- Jamie Vardy has the best xG per shot, indicating that he was at the end of the best chances on average among this group.



- Coutinho, Eriksen, and Barkley, who are more attacking midfielders and not strikers, have the lowest xG per shot.

Figure 4. Team level goals vs. xG performance





Source: own elaboration.

There are two different plots of the same data

1. X-Y scatter plot of Goals vs. xG at the team level
2. Bar chart of the team's over or underperformance of Goal scoring vs. xG

Which of the two charts is more informative or easy to read?

The answer is not always black or white. Both provide unique insights and are suitable for certain things.

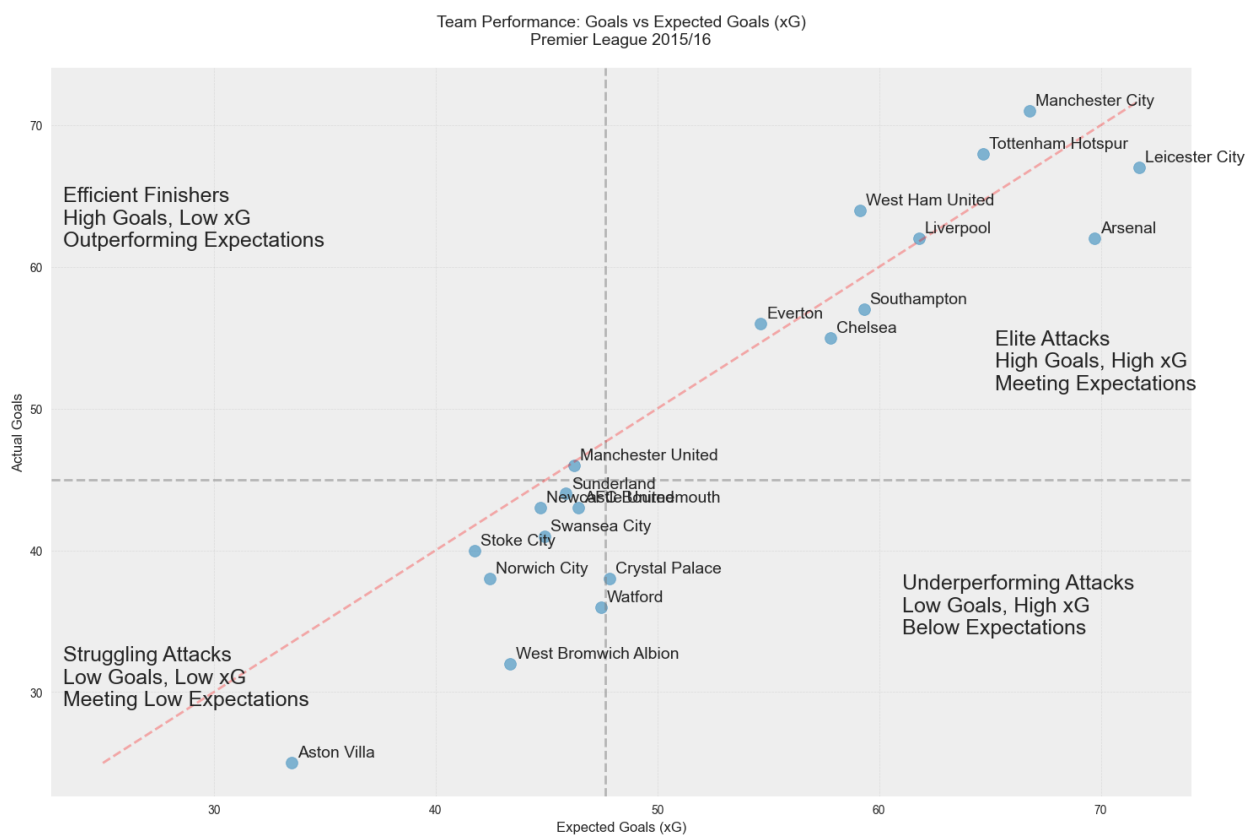
Analysis

- The bar chart is self-explanatory – it ranks teams by G vs. xG under/over performance.
 - West Brom, Villa, Watford, and Crystal Palace are the most underperforming xG by more than 20%. What does this mean?
 - maybe they need to create more chances and better ones on average



- It could be a personnel issue; we need better strikers who can convert shots to goals at a better rate
- However, the bar chart doesn't have information about the absolute #s of goals scored or xG created
- The X-Y Scatter plot shows the raw magnitudes of both xG and goals.
- It also gives a picture of where a team is compared to the rest of the league
 - Aston Villa is unable to create enough chances/shots. They have made the lowest amount of xG and scored the fewest goals.
 - Leicester City and Arsenal have created the most xG in the league but scored fewer goals than Manchester City, Spurs and West Ham.
 - City, West Ham, and Spurs are top 3 in xG over performance.
 - Liverpool and Everton are close to the $G = xG$ line. They are scoring almost exactly as many goals as their predicted xG.

Figure 5. Quadrant plot



Source: own elaboration.



A quadrant plot is a version of the X-Y scatter plot in which the average lines of both metrics are drawn to create four quadrants.

Quadrant analysis is very useful for grouping entities into four different buckets based on the common attributes of the quadrant.

In this example:

Q1: Top right – Elite attacks

This quadrant has the top attacking teams in the league, which create more xG and convert their chances better than the rest. League champions and championship contenders are usually in this quadrant.

Q2 – Top left – Efficient finishers

This group has teams that convert chances at an elite rate but don't create as much as the teams in Q1. They are either very clinical or a bit lucky.

Q3 – Bottom left – Struggling attacks

This group has teams that can neither create xG nor convert xG to goals at a reasonable rate.

Teams in this quadrant usually get relegated to the lower divisions.

Q4 – Bottom right – Underperforming attacks

This group consists of teams with low goals and high xG. These teams need goal scorers who convert faster than their current attackers.

How to answer the question: Who are the league's best and worst goal scorers?

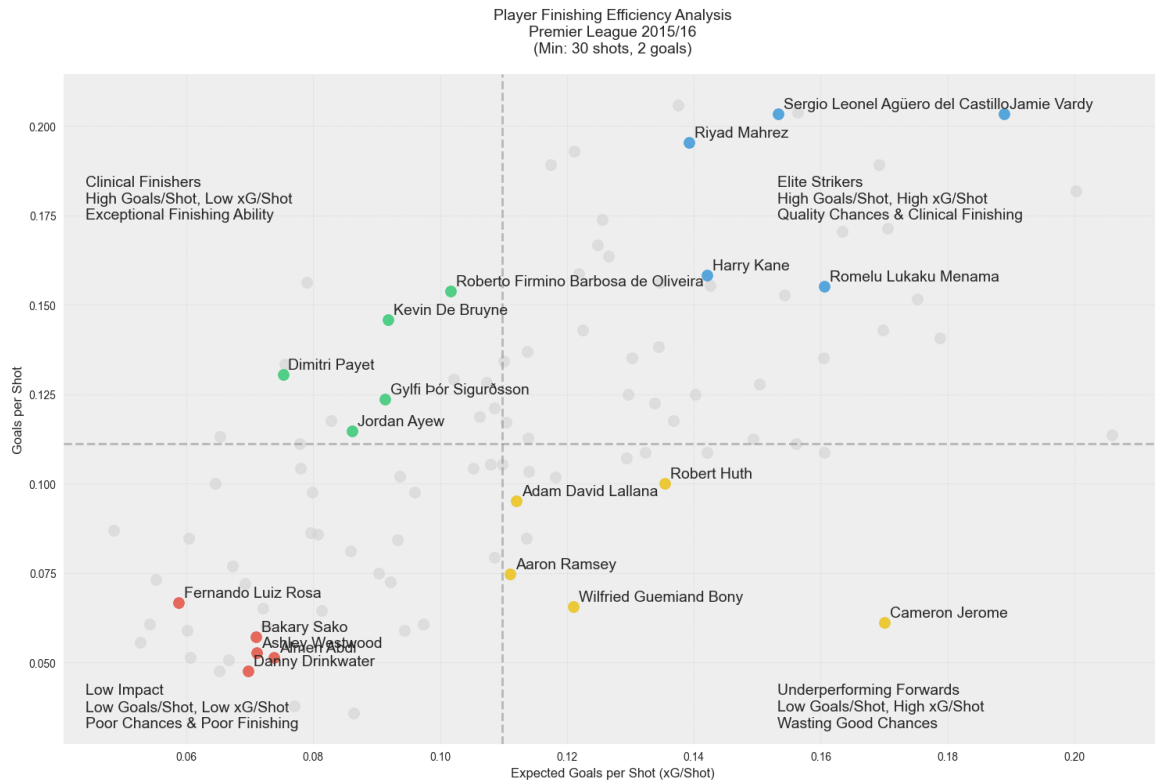
Here is how we go about it.

1. First, let us set a threshold for the shots taken. We start with 30. Let us set a minimum threshold of 2 goals scored to eliminate one-off goal-scorers from skewing the numbers.
2. Now let us do a quadrant plot of all the goal scorers that satisfy the above criteria between xG per shot and Goals per shot.
3. Identify and color code the top 5 in each of the top two quadrants and the bottom 5 in each of the two bottom quadrants.
 - a. This is to give us an idea of how the players at both ends of the spectrum.



- Additionally, add tables for the top 10 for both the "good" quadrants and the bottom 5 for the two "bad" quadrants.

Figure 6. Who are the league's best and worst goal scorers?



| Clinical Finishers | | | | | Elite Strikers | | | | |
|-------------------------------------|-------|-------|---------|---------|-----------------------------------|-------|-------|---------|---------|
| Player | Goals | Shots | Conv. % | xG/Shot | Player | Goals | Shots | Conv. % | xG/Shot |
| Gylfi Þór Sigurðsson | 11 | 89 | 12.4 | 9.1 | Harry Kane | 25 | 158 | 15.8 | 14.2 |
| Roberto Firmino Barbosa de Oliveira | 10 | 65 | 15.4 | 10.2 | Jamie Vardy | 24 | 118 | 20.3 | 18.9 |
| Dimitri Payet | 9 | 69 | 13.0 | 7.5 | Sergio Leonel Agüero del Castillo | 24 | 118 | 20.3 | 15.3 |
| Jordan Ayew | 7 | 61 | 11.5 | 8.6 | Romelu Lukaku Menama | 18 | 116 | 15.5 | 16.1 |
| Kevin De Bruyne | 7 | 48 | 14.6 | 9.2 | Riyad Mahrez | 17 | 87 | 19.5 | 13.9 |
| Pedro Eliezer Rodríguez Ledesma | 7 | 59 | 11.9 | 10.6 | Olivier Giroud | 16 | 103 | 15.5 | 14.3 |
| Ayoze Pérez Gutiérrez | 6 | 51 | 11.8 | 8.3 | Jermain Defoe | 15 | 88 | 17.0 | 16.3 |
| Nathan Redmond | 6 | 53 | 11.3 | 6.5 | Odion Jude Ighalo | 15 | 111 | 13.5 | 16.0 |
| James Philip Milner | 5 | 39 | 12.8 | 10.7 | Alexis Alejandro Sánchez Sánchez | 13 | 111 | 11.7 | 11.0 |
| Scott Dann | 5 | 32 | 15.6 | 7.9 | Troy Deeney | 13 | 94 | 13.8 | 13.4 |

| Low Impact | | | | | Underperforming Forwards | | | | |
|--------------------|-------|-------|---------|---------|--------------------------|-------|-------|---------|---------|
| Player | Goals | Shots | Conv. % | xG/Shot | Player | Goals | Shots | Conv. % | xG/Shot |
| Almen Abdi | 2 | 39 | 5.1 | 7.4 | Cameron Jerome | 3 | 49 | 6.1 | 17.0 |
| Ashley Westwood | 2 | 38 | 5.3 | 7.1 | Robert Huth | 3 | 30 | 10.0 | 13.5 |
| Bakary Sako | 2 | 35 | 5.7 | 7.1 | Adam David Lallana | 4 | 42 | 9.5 | 11.2 |
| Danny Drinkwater | 2 | 42 | 4.8 | 7.0 | Wilfried Guemiand Bony | 4 | 61 | 6.6 | 12.1 |
| Fernando Luiz Rosa | 2 | 30 | 6.7 | 5.9 | Aaron Ramsey | 5 | 67 | 7.5 | 11.1 |

Source: own elaboration.



Let us describe and analyze the four quadrants now.

Top right – Q1 – elite strikers

- High goals/shot
- High xG/shot

This group will have the best goal scorers in the league. Positionally, a lot of them tend to be target strikers or wide attackers who take many shots and score a lot.

Kane, Vardy, Aguero, Lukaku, etc., are all elite strikers. The top 10 in this is all strikers except Mahrez.

Top left – Q2 – clinical finishers

- High goal/shot
- Low xG/shot

This group has players who don't take as many shots but tend to be clinical with the chances they get. It often has technically gifted attacking midfielders and wingers who don't get into shooting situations as usual as the strikers but are nevertheless very good at converting their chances.

Sigurdsson, Payet, de Bruyne, Ayoze, Redmond, Milner, etc., are all attacking midfielders/attackers who don't operate as the central striker of the teams

Bottom left – Q3 – low impact

- Low Goals/shot
- Low xG/shot

Poor chances and poor finishing characterize this group.

Bottom right – Q4 – underperforming forwards

- Low goals/shot
- High xG/shot

This group is characterized by wastefulness (or, in some cases, streaks of bad luck).

Based on the above analysis, you can nuancedly answer who is at the extremes of the goal-scoring spectrum.



Let us summarize this case study into a presentation. I will not copy the visuals again into the presentation as it will be repetitive, but this summary slide deck gives you an idea of how to lay things out.

4.2.3 Summary presentation

We will apply all the design and writing good practices we learned in this slide deck to this presentation.

1. Clear structure:
 - Summary upfront.
 - Logical flow from problem to solution.
 - Clear visualization of key metrics.
 - Actionable recommendations.
2. Visual elements:
 - Clean, professional design.
 - Consistent color scheme.
 - Clear data visualizations.
 - Easy-to-read metrics.
3. Content organization:
 - Key findings highlighted.
 - Supporting data readily available.

Figure 7. Example of presentation



Premier League 2015/16 Season Analysis

Goals, Shots, and Expected Goals (xG) Analysis

Slide 1: Season Overview

Premier League 2015/16 - Shooting Analysis

- **Key Statistics:**

- Total Shots: 9,908
- Goals Scored: 1,026
- Expected Goals (xG): 1,015.2

- **League Conversion Rate:** 10.4%

- **Average xG per Shot:** 0.102



Slide 2: Season Overview

Premier League 2015/16 - Shooting Analysis

- The league slightly overperformed xG expectations (1,026 goals vs 1,015.2 xG)
- One goal scored every 9.7 shots on average
- Teams averaged 495 shots and 51.3 goals across the season
- High-quality chances (shots with xG > 0.3) accounted for approximately 20% of all shots
- Clear emphasis on shot quality over quantity among top performing teams

Slide 3: Team Performance

Premier League 2015/16 - Shooting Analysis

Top Scoring Teams

| Team | Goals | Shots | xG per Shot | Conv. Rate |
|-------------------|-------|-------|-------------|------------|
| Manchester City | 71 | 629 | 0.124 | 11.3% |
| Leicester City | 68 | 512 | 0.119 | 13.3% |
| Tottenham | 67 | 651 | 0.112 | 10.3% |
| Arsenal | 65 | 571 | 0.108 | 11.4% |
| Manchester United | 49 | 512 | 0.098 | 9.6% |

Slide 4: Team Performance

Premier League 2015/16 - Shooting Analysis

Key Insights:

1. Shooting Efficiency

1. Leicester City demonstrated exceptional efficiency (fewer shots, high conversion)
2. Tottenham led in shot volume but had a lower conversion rate
3. Man City balanced high volume with quality chances

2. Tactical Approaches

1. Counter-attacking teams (Leicester) showed higher xG per shot
2. Possession-based teams (Arsenal, Tottenham) generated more shots
3. Clear distinction between shot volume and shot quality strategies

3. Performance Patterns

1. Strong correlation between xG per shot and final league position
2. Top teams consistently maintained conversion rates above 10%
3. Clear gap between top 4 and rest in chance creation quality

Slide 5: Individual Performance

Premier League 2015/16 - Shooting Analysis

Top Scorers

| Player | Goals | Shots | xG per Shot | Conv. Rate |
|---------------|-------|-------|-------------|------------|
| Harry Kane | 25 | 158 | 0.145 | 15.8% |
| Jamie Vardy | 24 | 115 | 0.167 | 20.9% |
| Sergio Aguero | 24 | 119 | 0.172 | 20.2% |
| Romelu Lukaku | 18 | 106 | 0.155 | 17.0% |
| Riyad Mahrez | 17 | 98 | 0.138 | 17.3% |

Slide 6: Individual Performance

Premier League 2015/16 - Shooting Analysis

Performance Analysis:

1. Shot Selection

1. Elite strikers averaged higher xG per shot than the league average
2. Clear relationship between shot quality and conversion rate

2. Scoring Patterns

1. Counter-attacking strikers showed higher conversion rates
2. Consistent performers maintained 15%+ conversion rates
3. Balance between shot volume and quality crucial for top scorers

3. Chance Quality

1. Top strikers averaged 0.15+ xG per shot
2. Positional play and shot selection heavily influenced xG

Slide 7: Overall Analysis

Premier League 2015/16 - Shooting Analysis

1. Performance Patterns

1. Most players perform within ± 3 goals of xG
2. Elite finishers consistently outperform expectations
3. System and role influence performance vs xG

2. Contributing Factors

1. Shot selection crucial for overperformers
2. Positioning and chance quality impact conversion

3. Key Insights

1. Sustainable overperformance is rare but possible
2. Quality chance creation is crucial for consistency
3. Clear patterns in over/underperformance by position



Slide 8: Summary and Conclusions

Premier League 2015/16 - Shooting Analysis

Season Trends

- Quality over quantity in shot selection
- System influence on player performance

Team Strategies

- Different approaches to chance creation
- Importance of conversion efficiency
- Balance between volume and quality

Individual Excellence

- Elite strikers maintain high standards
- Consistent overperformance possible
- Clear patterns in successful approaches

Future Implications

- Shot quality is increasingly important
- Data-driven approach to improvement

Source: own elaboration.

It is a good start to the presentation with the Conclusions or Findings slide to set the table for the audience.

Conclusion

Effective communication of data analysis results is a critical skill distinguishing between a successful project and a failure to drive change. By understanding your audience, structuring your message appropriately, choosing the right visualizations, and following best practices for different communication formats, you can ensure your insights lead to action and value creation.

Remember that communication is an ongoing process, not a one-time event. Regular check-ins, updates, and adjustments based on feedback will help ensure your analysis has the intended impact and drives positive change in your organization.

Further reading

Few, S. (2006). *Information Dashboard Design*. O'Reilly Media.

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