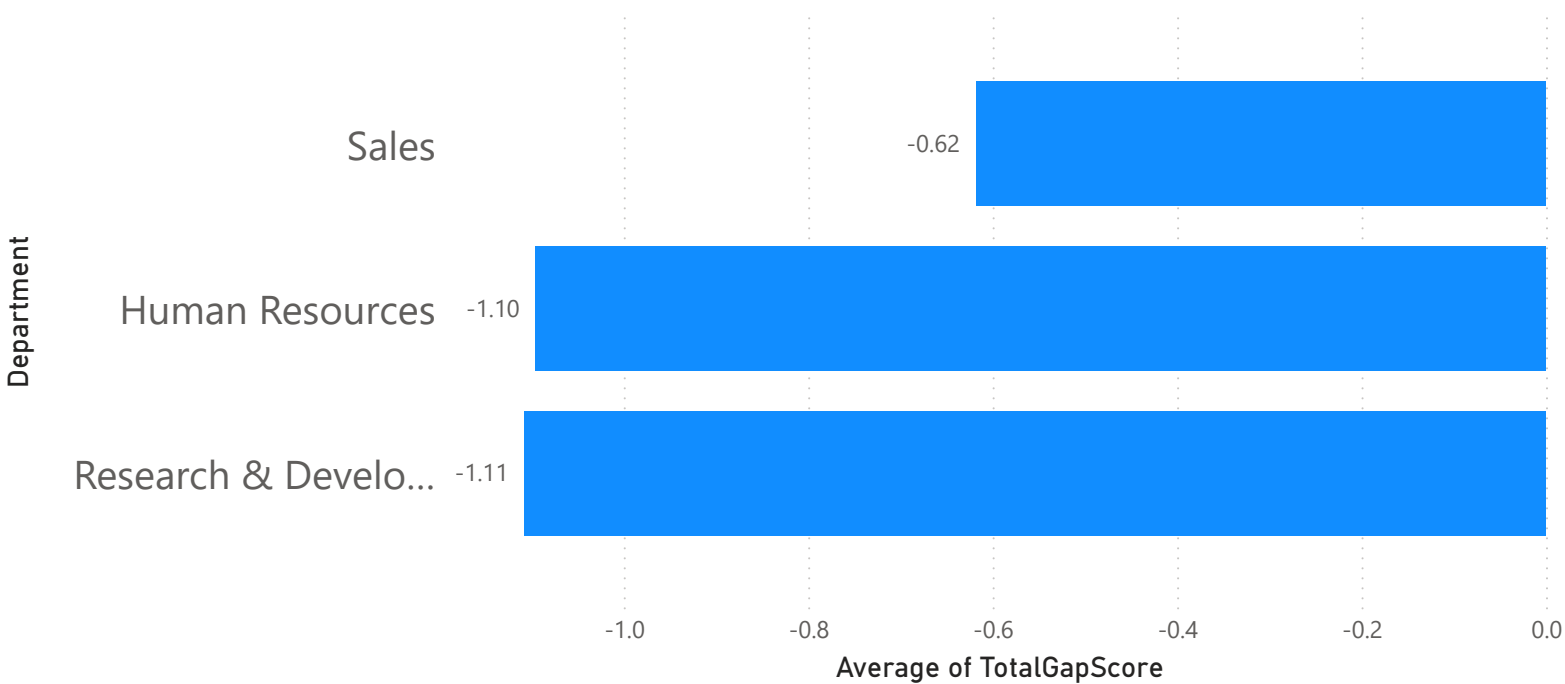# Which departments and job roles show the most critical skill gaps, and where should upskilling be prioritized?

Average of TotalGapScore by Department

Total Training Needs Identified

900

Sum of TotalTrainingNeedFlag

Avg Total Skill Gap (All Employees)

-0.96

AverageGap

The average skill gap across the company stands at **–0.96**, highlighting room for development across teams.

Departments like **Research & Development (–1.11)** and **Human Resources (–1.10)** show the widest gaps, meaning employees there are falling furthest behind expected skill levels.

With **900 total training needs identified**, these teams should be prioritized for upskilling programs to prevent capability risks and performance drops.

This gives leadership a clear direction on **where to act first**.

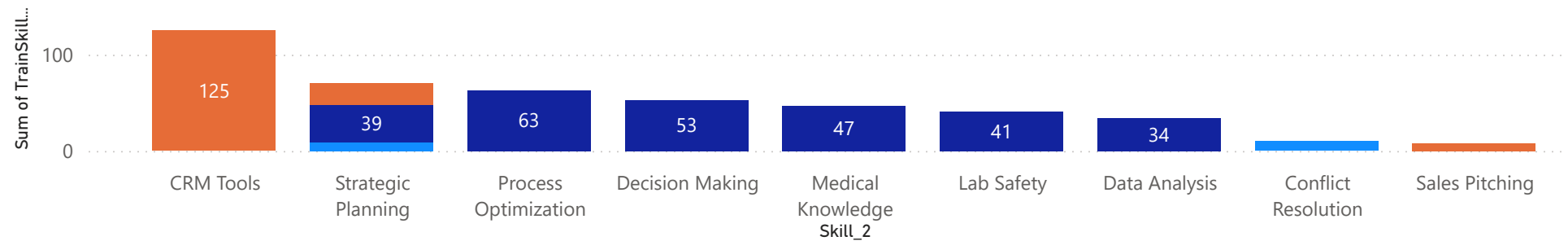# What percentage of employees require training in each skill, and how does this vary across departments?

Skill 1 – Training Need by Skill and Department
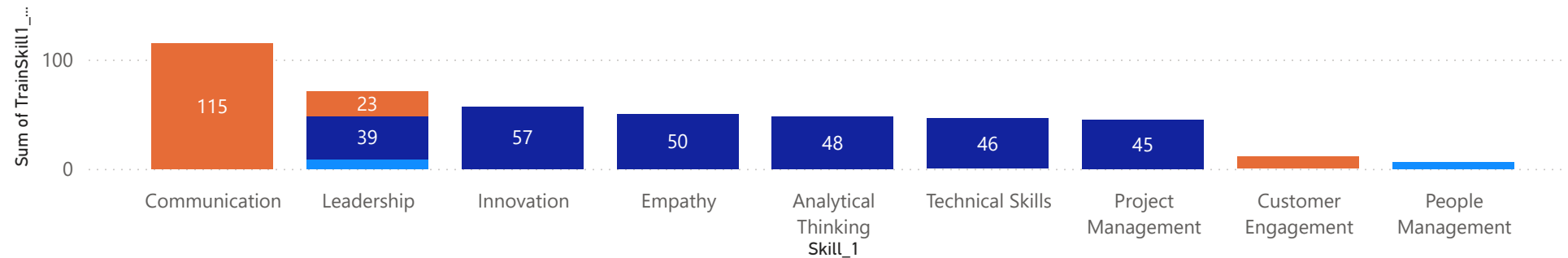
Skill 2 – Training Need by Skill and Department

Employees across departments show high demand for training in key skills like **Communication**, **CRM Tools**, and **Innovation**.
  • **Sales** has the largest training need in **Communication** and **CRM Tools**
  • **R&D** is consistently showing demand across skills like **Innovation**, **Analytical Thinking**, and **Strategic Planning**
  • **HR** is minimal in comparison but still flags a few focused needs
This breakdown helps teams tailor training content by department — instead of using a one-size-fits-all approach.
It's not just who needs training — it's **what** they need, and **where.**

If targeted training is implemented, which departments and skills would show the most improvement in gap scores?

Average Skill Gap Reduction by Department — Before vs After Training Simulation

● Average of TotalGapScore ● Average of Simulated_Gap_Score
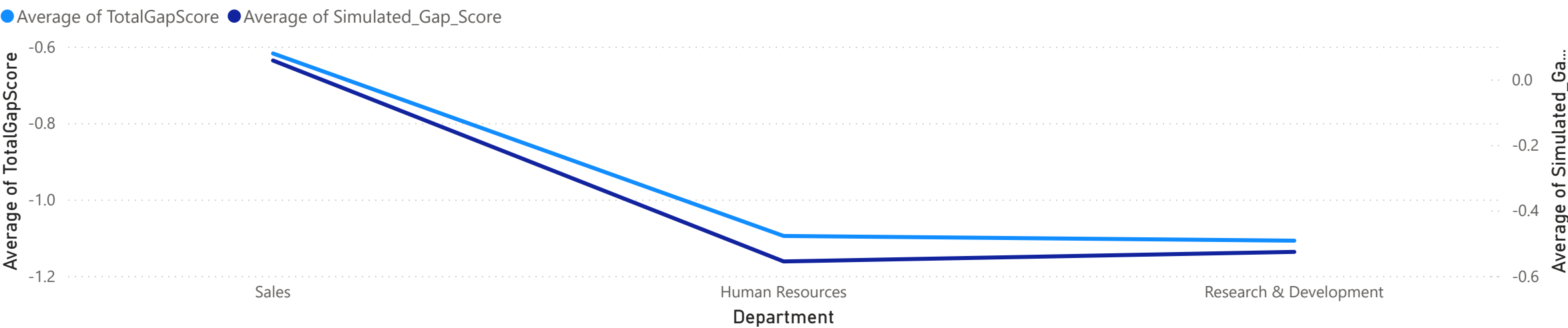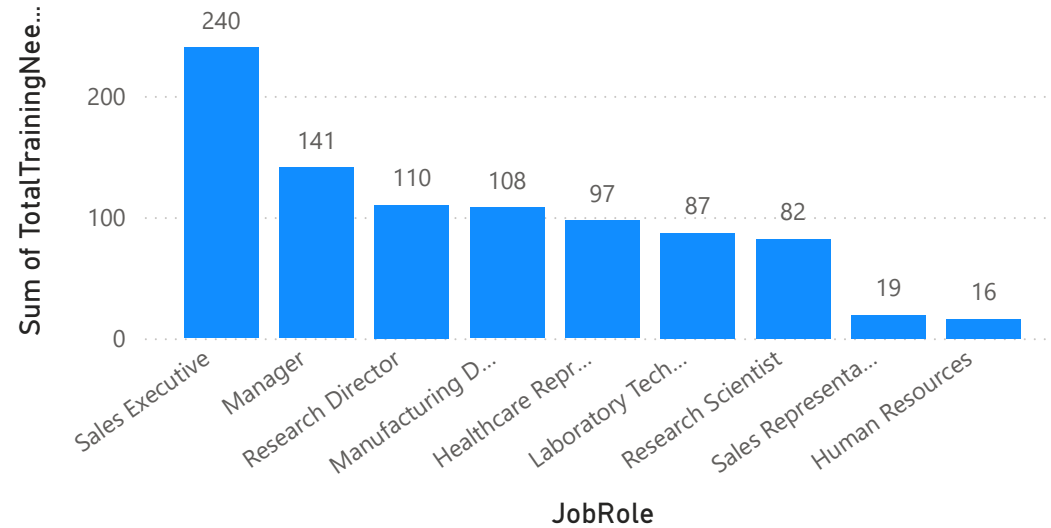

-0.96
Average of TotalGapScore

-0.35
Average of Simulated_Gap_Score

If targeted training is delivered based on current needs, the **average skill gap could shrink from –0.96 to –0.35**, a significant improvement.
All departments show improvement, with **Sales** likely to benefit the most proportionally, followed by HR and R&D.
This simulation proves that even basic, well-targeted training can **drastically reduce skill risk** and improve team readiness.
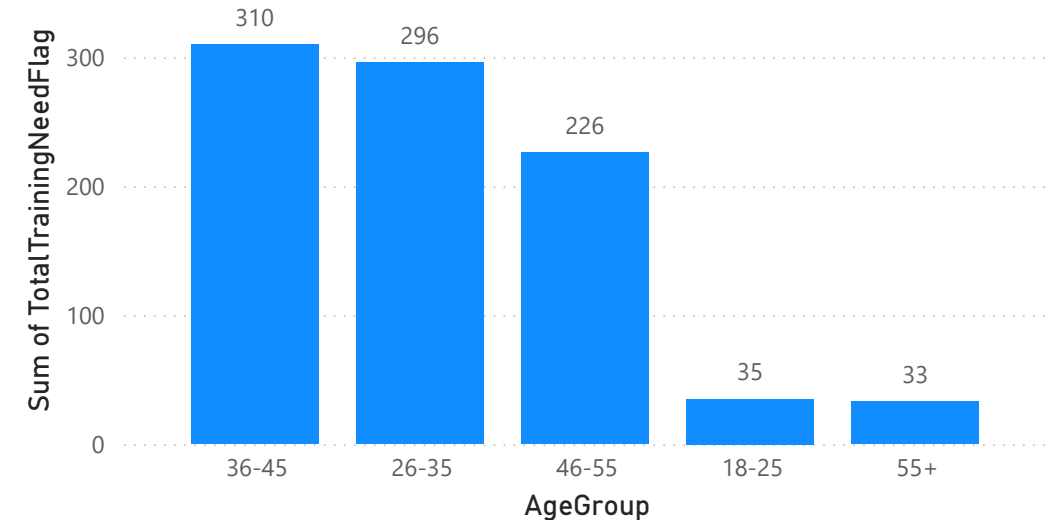
This isn't just potential — it's the impact you could unlock by acting now.
This simulation assumes that targeted training improves each flagged skill by **60%**, meaning each relevant skill gap is partially reduced. The adjusted scores simulate the expected outcome after training, showing potential improvements in average gap scores.

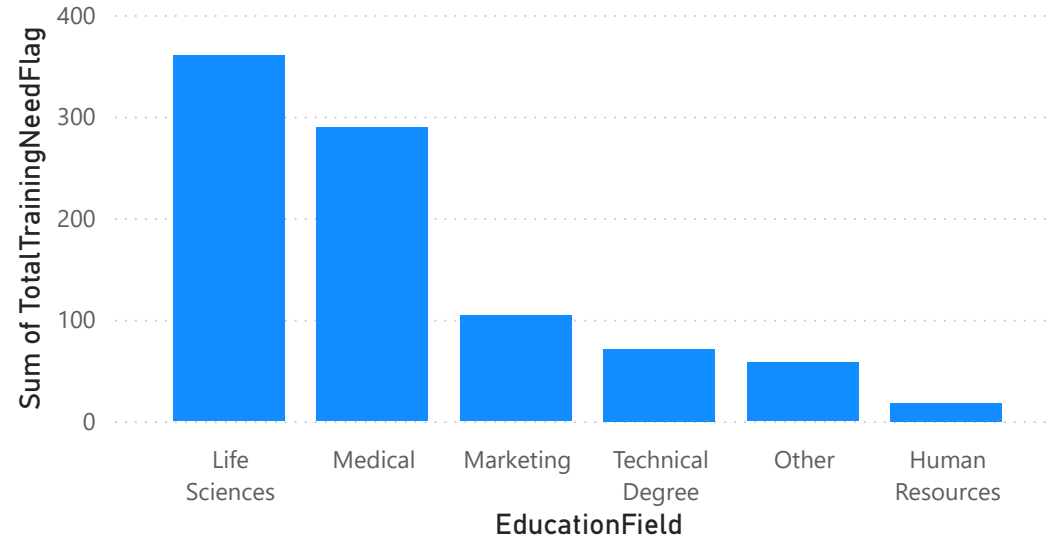# How do training needs vary across job levels, age groups, and education levels?

Training Need Distribution by Job Role

Bar chart — Sum of TotalTrainingNee... by JobRole:
- Sales Executive: 240
- Manager: 141
- Research Director: 110
- Manufacturing D...: 108
- Healthcare Repr...: 97
- Laboratory Tech...: 87
- Research Scientist: 82
- Sales Representa...: 19
- Human Resources: 16

Training Need by Age Group

Bar chart — Sum of TotalTrainingNeedFlag by AgeGroup:
- 36-45: 310
- 26-35: 296
- 46-55: 226
- 18-25: 35
- 55+: 33

Training Need by Education Level

Bar chart — Sum of TotalTrainingNeedFlag by EducationField:
- Life Sciences
- Medical
- Marketing
- Technical Degree
- Other
- Human Resources

Top Age Group Requiring Training

36-45

Top_AgeGroup_Training_Need

Training needs aren't evenly spread — they vary a lot based on employee profile.

- **Sales Executives** have the highest training requirement by job role
- The age group **36–45** has the most flagged training needs
- Employees with a **Life Sciences or Medical background** top the list by education field

These patterns help target training more effectively — not just by department, but by **who** needs what most urgently.

It's not about training everyone — it's about training the **right people** first.

High Risk Employees & Retention Priority

EmpID	Department	JobRole	TotalGapScore	Attrition	HighRiskEmployeeFlag
RM001	Sales	Sales Executive	-2	Yes	0
RM002	Research & Development	Research Scientist	2	No	0
RM003	Research & Development	Laboratory Technician	-4	Yes	1
RM004	Research & Development	Research Scientist	-5	No	0
RM005	Research & Development	Laboratory Technician	2	No	0
RM006	Research & Development	Laboratory Technician	-2	No	0
RM007	Research & Development	Laboratory Technician	-2	No	0
RM008	Research & Development	Laboratory Technician	-1	No	0
RM009	Research & Development	Manufacturing Director	2	No	0
RM010	Research & Development	Healthcare Representative	0	No	0

High-Risk Employees Due to Skill Gaps

130

TotalHighRiskEmployees

High-Risk Employees Due to Unaddressed Skill Gaps — by Department
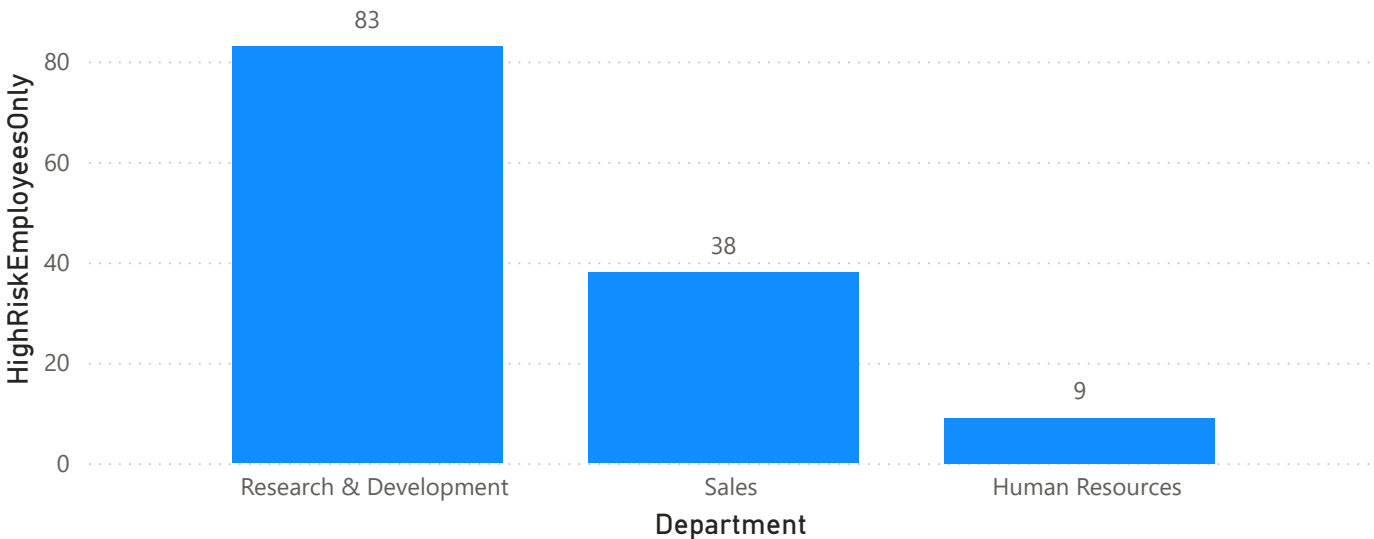
There are **130 employees at high risk** due to skill gaps who haven't been flagged for training — and they've already shown signs of attrition risk.

- Most of them are in **Research & Development (83)** and **Sales (38)**
- These employees have low skill gap scores, no assigned training, and are marked with potential attrition
- If left unaddressed, they pose a major retention and productivity risk

This view highlights exactly **who needs urgent support**, before they leave or burn out.

This summary highlights total training needs, potential risk reductions via simulation, and high-priority groups to upskill immediately.

Total Training Needs Identified

900

Sum of TotalTrainingNeedFlag

Avg Skill Gap Score (Before)

-0.96

Average of TotalGapScore

Avg Skill Gap Score (After Simulation)

-0.35

Average of Simulated_Gap_Score

High-Risk Employees

130

TotalHighRiskEmployees

Top Age Group Needing Training

36-45

Top_AgeGroup_Training_Need

Sum of TotalGapScore and TotalHighRiskEmployees by Department

● Sum of TotalGapScore   ● TotalHighRiskEmployees