

MIX 2.0

Meta-analysis Made Easy



An Introduction to MIX 2.0

Software for meta-analysis in Excel



What is MIX 2.0?

- **MIX** stands for **M**eta-analysis **I**n **eX**cel
- Nifty add-in for meta-analysis in Excel
- Prior versions of MIX were for Excel 2000/2003
- MIX 2.0 is meant for Excel 2007/2010



MIX 2.0 Lite

- MIX 2.0 Lite is meant **for learning and teaching** about meta-analysis with Excel
- It's **free** and contains many datasets from authoritative books on meta-analysis
- Does almost everything that MIX 2.0 Pro can do, but it has **no data management** facilities



MIX 2.0 Pro

- MIX 2.0 Pro is professional software for meta-analysis in Excel
- Create, edit, and manage **your own datasets** of binary, continuous, and generic outcome data
- It's has a **unique feature set** and is **user-friendly** and **affordable**



Licenses for MIX 2.0 Pro

- MIX 2.0 Lite is **free** for everyone, but MIX 2.0 Pro requires a license and activation
- MIX 2.0 Pro has 3 main license options
 - **Personal**: \$210.00
 - **Academic**: \$155.00
 - **Student**: \$75.00
- Academic researchers and students without funding can inquire for further discounts

MIX 2.0

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WHAT DOES IT LOOK LIKE...?

Home Insert Page Layout Formulas Data Review View Developer Add-Ins Acrobat

Cut Copy Paste Format Painter Clipboard

Calibri 11 Font

Wrap Text Alignment Merge & Center

General Number

Conditional Formatting Styles

Format as Table Cell Styles

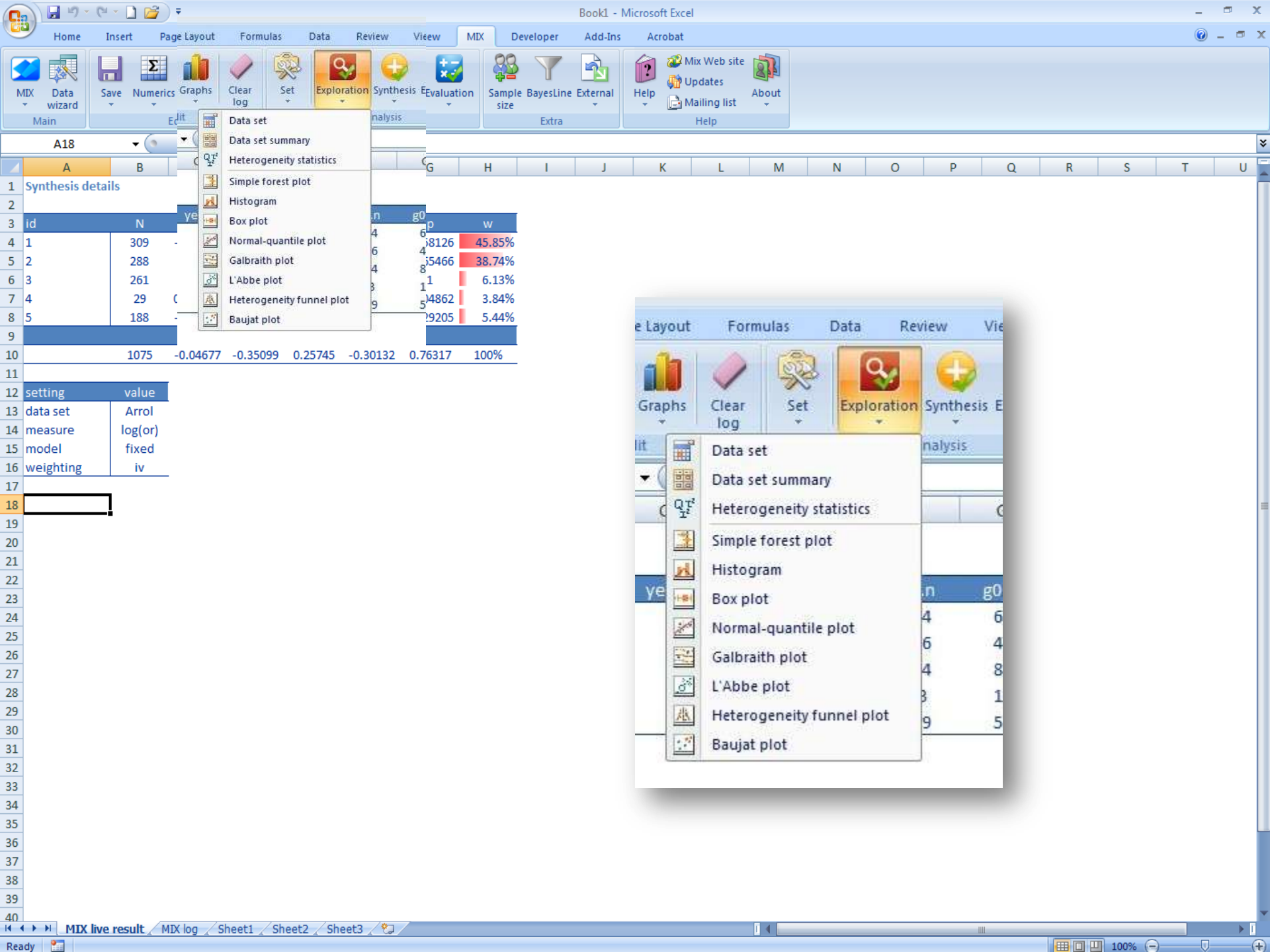
Insert Delete Format Cells

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Sort & Filter Find & Select

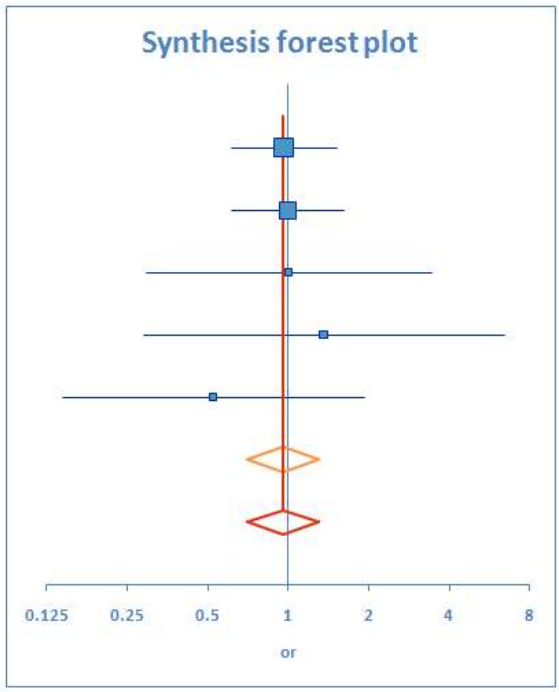
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1 Synthesis forest plot

2



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Meta-tutor

Synthesis forest plot

Essentially the same as the simple forest plot, except the summary estimate is depicted at the bottom of the plot by means of a diamond with the edges extending to the confidence limits of the estimate. The forest plot shows the estimate (often a risk ratio or odds ratio) and confidence interval for each study with squares and horizontal lines. The sizes of the squares are proportional to the relative study weights. Commonly at the bottom, the corresponding summary estimate is shown with a diamond shape of which the edges extend to the confidence limits. If a random effects model is chosen and the tau-square estimate is more than 0, the predictive interval is shown by means of whiskers (horizontal lines) extending on each side of the diamond. Forest plots may be useful for showing how the effect estimates from individual studies accumulate to a meta-analysis result. It has also been suggested that the plots provide a visual representation of the amount of variation between

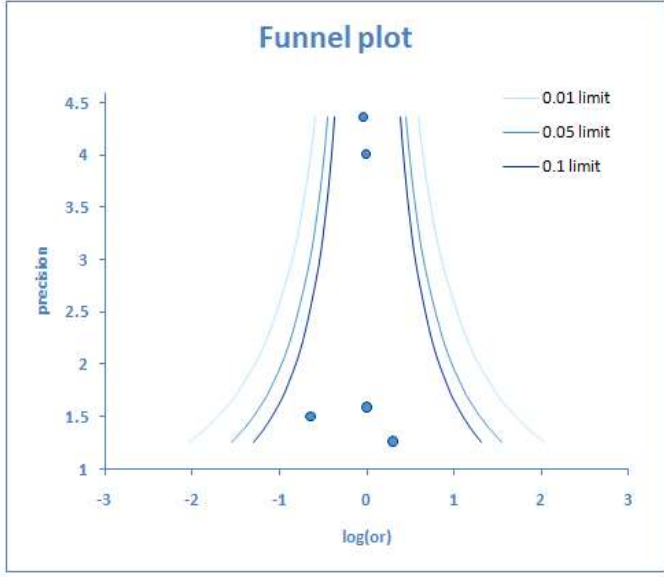
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Meta-tutor (18 of 29)

Exit

1 Funnel plot
2



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MIX - Preferences and settings

MIX
Meta-analysis Made Easy

General graphical settings

Graph settings 1

Graph settings 2

Labeling

Synthesis forest plot

Show subgroup results Combine subgroup results

Funnel plot

Variable on y-axis: precision

Additional reference lines:
 Confidence interval limits
 P-value limits (0.01, 0.05, 0.1)

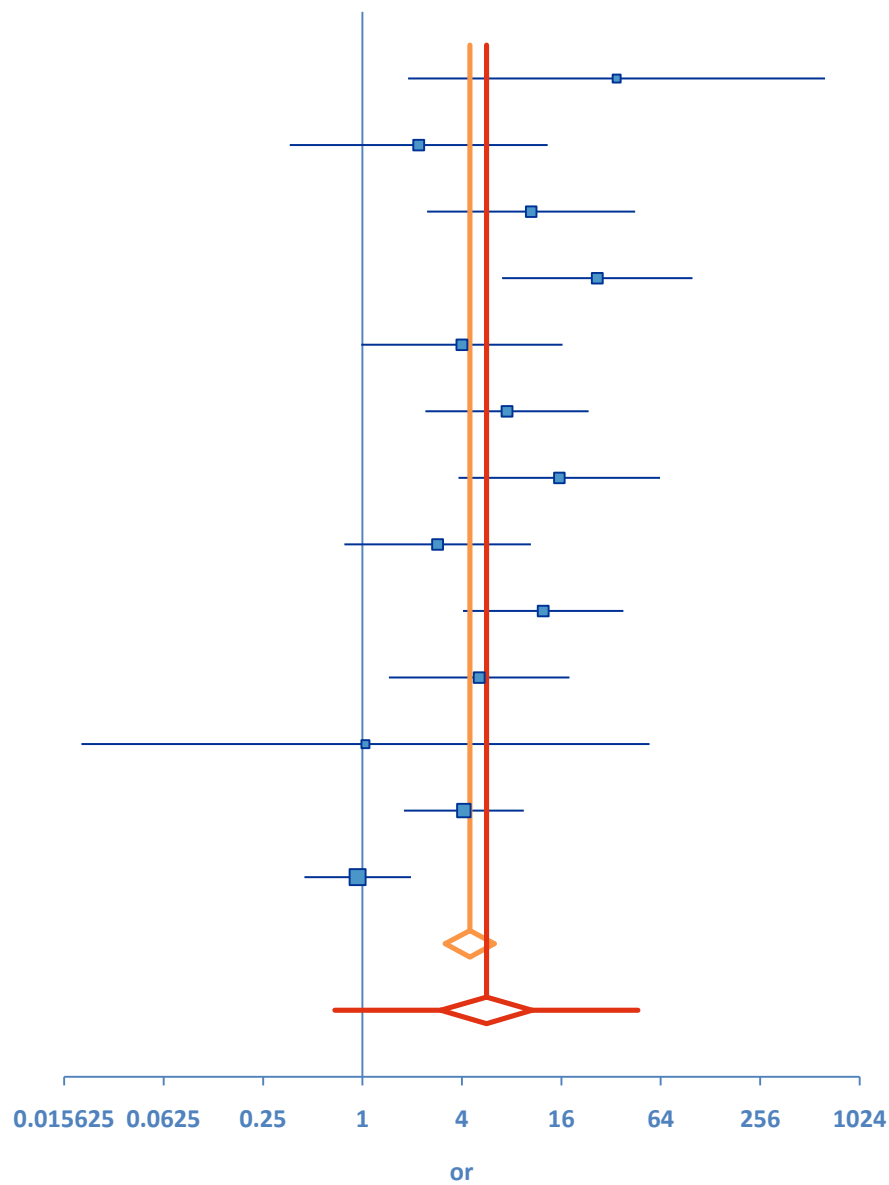
Trim and fill plot

Variable on y-axis: precision

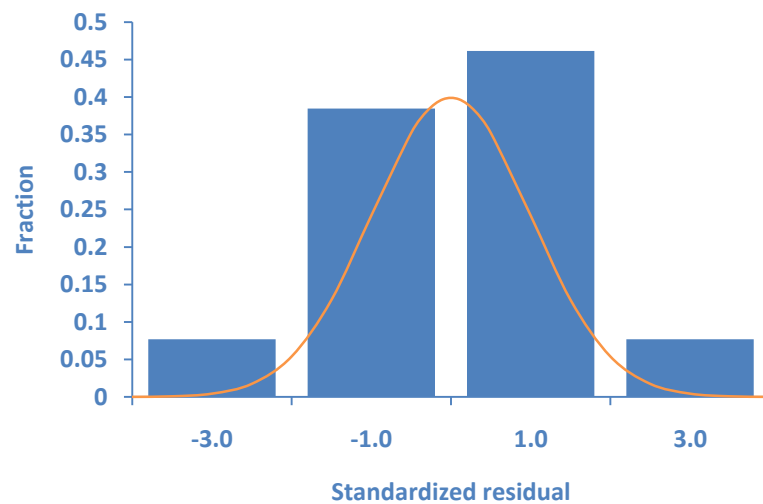
Additional reference lines:
 Confidence interval limits
 P-value limits (0.01, 0.05, 0.1)

Close Save

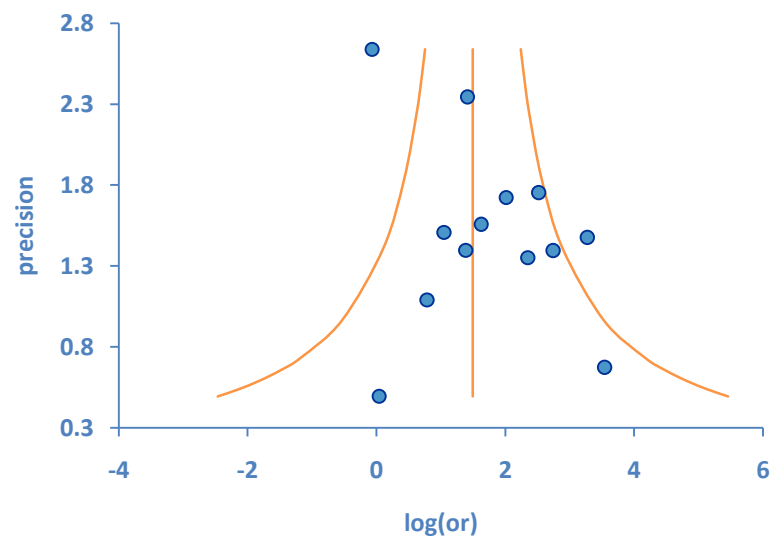
Synthesis forest plot



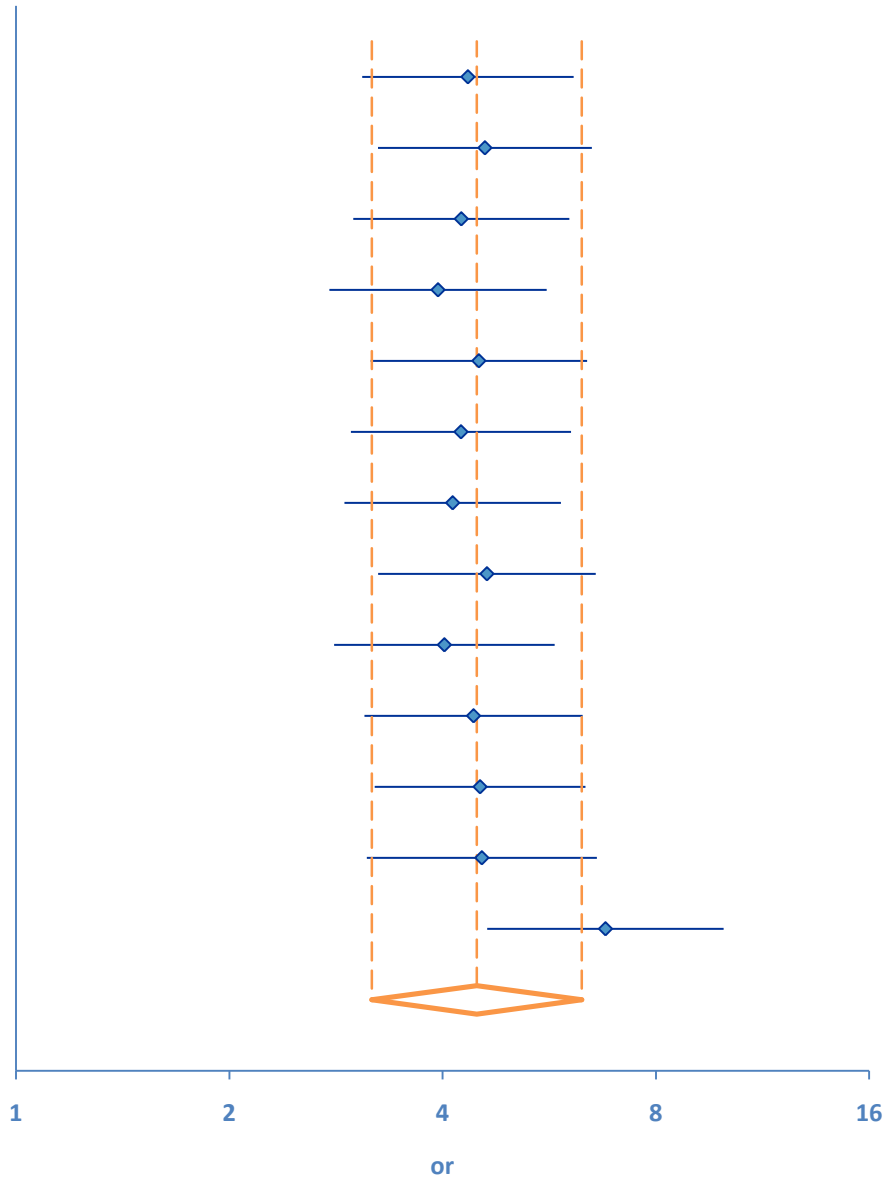
Histogram



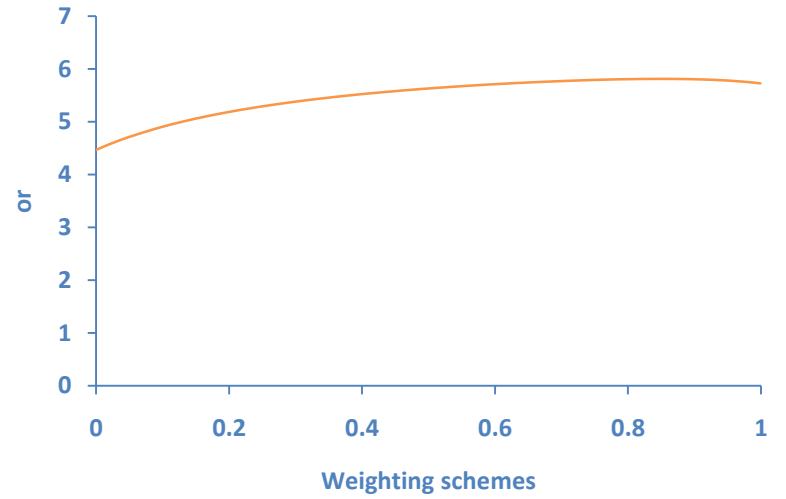
Heterogeneity funnel plot



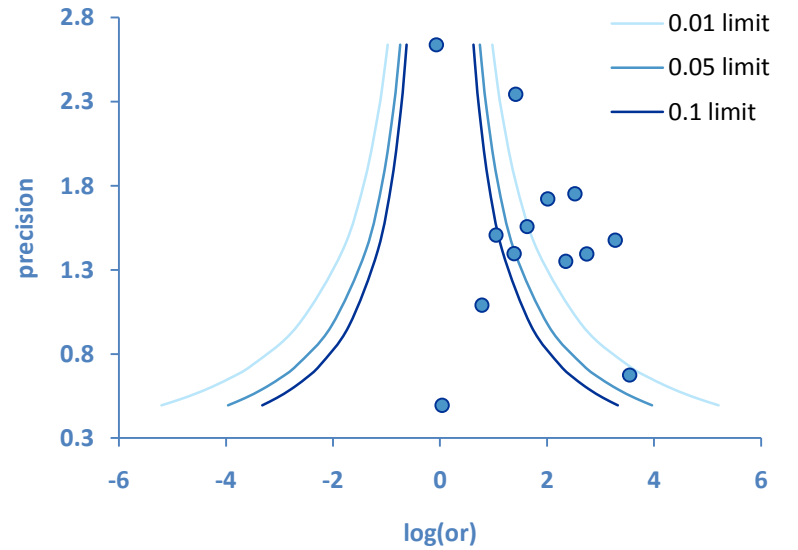
Exclusion sensitivity plot



Weighting sensitivity plot



Selectivity funnel plot





What else is different?

Structured approach

- **Exploration**

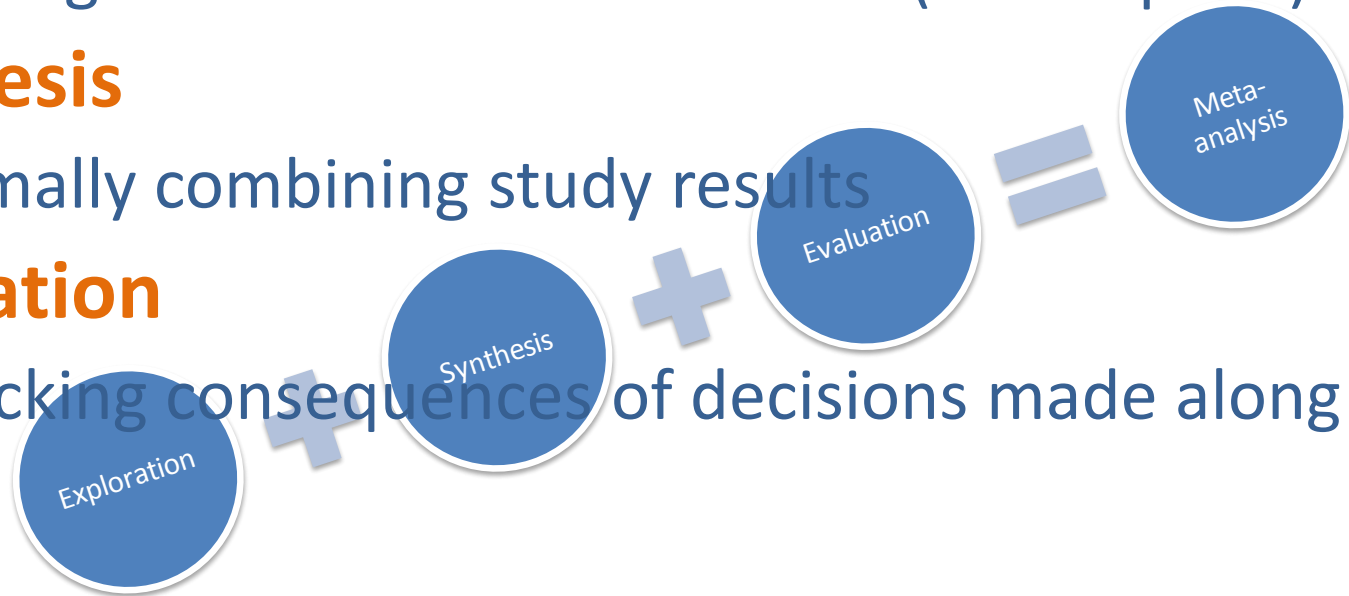
- Getting in touch with the data set (lots of plots)

- **Synthesis**

- Formally combining study results

- **Evaluation**

- Checking consequences of decisions made along the way





What's not so good about MIX?

- It works inside Excel
 - So you need Excel...
- It does not...
 - Manage reviews
 - Do diagnostic meta-analysis
- Some features are under construction
 - We try to improve MIX continuously



Other recommended software?

- General statistics software
 - STATA, StatsDirect
- Dedicated meta-analysis software
 - RevMan, CMA, MetaWin, Meta-Analyst
- Recommended Bayesian software
 - WinBUGS, OpenBUGS
- **MIX really stands out** in terms of **usability**, **graphics**, and **educational** impact



When do you use MIX?

ALWAYS use MIX for your
meta-analysis!

JUST KIDDING!!!



... but MIX is a great tool...

- For scientific meta-analysis
- To produce professional statistics and graphs
- For learning and teaching about meta-analysis
- To make cool graphs for presentations...





That's all there is to it...

Good luck with your meta-analysis!