**Webisode 1 – Dimensions of difference in systematic reviews**

Presenter: David Gough (EPPI-Centre, UCL)

EPPI-Centre Evidence Tools, Products, and Projects – A series of webisodes from the Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre. Hosted by AIR’s Center on Knowledge Translation for Disability and Rehabilitation Research (KTDRR).

**Slide 1: Cover slide**

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**Cover slide template:** dark blue background with white text and gray text. Gray bar at bottom with AIR logo on the left (gray and blue column on left; letters in blue, AIR (R) on the right; words below in blue, American Institutes for Research (R)). To the left of AIR logo, EPPI-Centre logo: A large blue script letter e to the left, with smaller black letters PPI to the right. Below PPI, in a smaller black box, is the word CENTRE in white text.

**Slide 2: Title slide**

**Dimensions of difference in systematic reviews:**

February 2018. David Gough (EPPI-Centre, UCL).

**Title slide template:** Blue bar at top. On far left, Institute of Education. On the far right, UCL Logo: White image of Main Building with large white letters UCL to the right. In the center background, a photograph of London with title text superimposed over the image. White bar at the bottom: On far right, EPPI-Centre logo: A large blue script letter E to the left, with smaller black letters PPI to the right. Below PPI, in a smaller black box, is the word CENTRE in white text.

**Slide 3: What are systematic reviews?**

•Research is systematic critical enquiry (Stenhouse 1981)

•Research reviews are a ’meta’ level of research

•Instead of addressing research questions by studying the world directly, reviews use the findings of existing studies to address research questions

•Reviews are a form of research so should be systematic (and explicit about methods)

**Slide 4: Dimensions of difference in reviews**

•Primary research varies extensively in range of questions asked and methods used

•Reviews likely to include primary studies that ask the same question as the review

•Reviews are likely to have similar methodological approaches and concerns as the primary studies they include

**Slide 5: Aggregative approaches**

On the left of the slide: Aggregative synthesis predominately adds up (aggregate) findings of primary studies to answer a review question…to indicate the direction or size of effect.

On the right of the slide: an image of a sea shore and a small tower of rocks on the shoreline.

**Slide 6: Configurative approaches**

On the left of the slide: Configurative synthesis predominately arranges (configures) the findings of primary studies to answer the review question…to offer a meaningful picture of what research is telling us

On the right of the slide: an image of vibrant, colorful flowers.

**Slide 7: Fitting research questions with methods**

•Impact / effectiveness/what works = methods that control for extraneous variables such as randomized controlled trials

•Causal processes/ mechanisms: Logic models + mixed methods of empirical data on necessary conditions + qualitative data on process

•Prevalence:  counting, e.g. surveys, routine/ administrative / big data

**Slide 8: Dimensions of difference in reviews**

A graphical representation of differences in systematic reviews. There are 5 words depicted in the center of the slide each word is on a horizontal scale. To the left are “Reviews which will make inferential claims based on theory (e.g. meta ethnography).

To the right are “Reviews which make inferential claims based on statistics estimation (e.g. statistical meta analysis).

The words from top to bottom begin with, “Framing the problem”, the scale is as reads below with arrows to each side:

Open - **Questions** - Closed

Emergent - **Concepts** - Pre-specified

Less formal - **Procedures** - More formal

Theoretical - **Inference** - Statistical

Enlightenment - **Impact** - Instrumental

Framing of new research questions

**Slide 9: Example 1: Statistical meta-analysis**

The table depicts the results of a meta-analysis with 6 included studies ranging from 2002 to 2005.

Columns 2, 3, and 4, of the table describe each study’s Effect (CI), Weight (%), and Size.   
On the right side of the table is a graphical depiction of these results where the majority of studies favor the intervention over the control.

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**Slide 10: Example 2: mixed methods multi stage review integrating qualitative research and trials**

**Review question** – e.g. What is known about the barriers to, and facilitators of, fruit and veg intake amongst children aged 4 to 10 years?

MAPPING (193 studies in 272 reports)

**‘Views’ studies (N=8)**

1. Application of inclusion criteria

2. Quality assessment

3. Data extraction

4. Thematic synthesis

**Trials (N=33)**

1. Application of inclusion criteria

2. Quality assessment

3. Data extraction

4. Statistical meta-analysis

Trails and ‘views’

Mixed methods synthesis

**Slide 11: Example 3: multi stage appraisal of a proposed policy**

Smoking in cars legislative logic model\*

1. How significant is the risk? (Toxicology)

2. Is there public support? (Survey research)

3. Will it survive lobbying? (Political science)

4. Is it enforceable? (Policing evaluation)

Unpacking the necessary components (configure), then test the evidence from each of these (iterative/aggregative)

\*Model from Ray Pawson 2013

**Slide 12: Dimensions of difference in reviews continued**

•Questions and conceptual framework

•Studies considered

•Single or multi-component reviews

•Breadth, depth and time available

•Methods of review, and aggregative and/ or configuring synthesis

•Use of theory and data

•Breadth and depth of a review question and ‘work done’ by a review (see webisode on rapid reviews

•Reviews of reviews (see webisode on umbrella reviews)

**Slide 13: Review ‘brands’**

•There are many brands of reviews that provide a quick label to understand the type of review

•There is often major variation in the reviews within one type of review, so being aware of and specifying the ‘dimensions of difference’ of a review is important

**Slide 14: Thank you**

Websites

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Top right: IOE London logo. Leading education and social research. Institute of Education, University of London.

Image on right: London at night - the London Eye on left, bridge over River Thames center, Westminster Palace in background on right.

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**Slide 15**: **Disclaimer**

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