**Exercise answers – Chapter 2**

## Exercise 2.1 How systematic is this review?

Disciplines differ in the extent to which they have adopted systematic approaches to research synthesis. Identify a review article within your own subject area or discipline (for example, search for ‘review’, ‘overview’, or ‘meta-analysis’ in the title or abstract). To what extent can your chosen review be described as ‘systematic’? Exercise 2.1 suggests that you construct a grid as in the following example and complete it with your own observations.

|  |  |
| --- | --- |
| **1Features that make this review appear SYSTEMATIC** | **2Features that make this review appear NON-SYSTEMATIC** |
| Clearly focused review question | Unclear question – typically expressed as a topic |
| Clear Inclusion and Exclusion Criteria | Unclear why studies have been included or excluded |
| Reproducible Search strategies | General vague description of search methods (if any) |
| Identifiable number of included studies presented in Tables | Different studies introduced at different points of the review |
| Clear signposting of review structure | Discursive style organised by flow of argument |
| Clear recommendations for practice | Recommendations not clearly signposted |
| Clear recommendations for research | Lack of transparency between evidence base and recommendations |
| Technical appendices detailing Methods used | Little detail of Methods used |
|  |  |

## Exercise 2.2 Identify a systematic review

Identify a systematic review in an area of interest to you and also identify a conventional review in a similar or related topic. Place the two reviews side by side and briefly make a list of the differences between the two reviews.

We have placed two reviews on related topics side by side and have briefly listed the differences between the two reviews (Turner and Muller, 2005; Pirzadeh, 2010). Both our reviews examine aspects of human factors in successful project management. The first is a conventional or traditional review of project manager’s leadership style. The second is a systematic literature review on human factors in software development.

|  |  |
| --- | --- |
| **Conventional or traditional review** | **Systematic review** |
| No details of database sources used to identify studies | Four databases used and listed |
| No details of number of included studies | Clear accounting of studies included/excluded at each stage with reasons |
| No details of methods used | Detailed description of all methods |
| No categorisation of studies by type | Taxonomies used to group studies |
| Narrative commentary of individual study features | Data extraction used to identify shared study features |
| Individual studies loosely grouped under subheadings | Model or framework used for presentation of studies |
| No definitive conclusion –subjective identification of research gaps | Specific identification of research gaps linked to review findings |
| etc. … | etc. … |
| **Turner & Muller, 2005** | **Pirzadeh, 2010** |
| **Citation:** Turner, J.R. and Müller, R. The project manager's leadership style as a success factor on projects: a literature review. Project Management Journal. 2005, 36(2): 49–61.  <http://www.kth.se/polopoly_fs/1.227898!/Menu/general/column-content/attachment/Turner_M%C3%BCller_2005.pdf> | **Citation:** Pirzadeh, L., Human Factors in Software Development: A Systematic Literature Review, MA thesis, Chalmers University of Technology, 2010.  <http://publications.lib.chalmers.se/records/fulltext/126748.pdf> |

## Exercise 2.3 How systematic is that review?

Look through the following fictional abstract describing ‘a structured review of the literature’ in light of what you have already learnt regarding the search, appraisal, synthesis, analysis (SALSA) framework. Which elements of this abstract provide evidence of a systematic approach?

### Performing X in Y: A structured review of the literature

#### Abstract

{Two brief sentences of Background}. A literature search was conducted across **{list of Databases and Internet sources}** of studies that evaluated XA. **Information on the type of activity, sample and setting, endpoints, and study design were extracted**. **Studies were classified** based on a modified {Hypothetical Worthy} modelC. Four categories of activity were identified: **actor, decision-support, involvement and systems**C. The search strategy and selection criteria yielded **21 articles**A. Eleven studies used an actor activity; two studies used a decision support activity, seven used an involvement activity, and one used a systems interventionC. The **overall quality of research** was uneven: research design – nine studies were quasi-experimental in nature, endpoint measures were not consistent – three did not perform statistical analysisB. Sample char­acteristics varied dramaticallyB. In conclusion, **the number of high-quality studies of X remains limited**. **Methodological limitations** include measurement of an inappropriate surrogate measure when measurement of an endpoint would be more validD. **Further research** is needed to understand how each type of activity improves the quality of performing X in a Y settingD.

**[Items indicating a systematic approach highlighted in Bold]**

**A: Search** – The authors list the databases and sources they have used. They also indicate the presence of selection criteria which provide an explicit means of deciding which studies will or will not be included.

**B: Appraisal** – The authors indicate that a process of quality assessment was undertaken. They looked at such elements as the research design, the statistical analysis and the characteristics of the sample. As a result they are able to conclude that there are a limited number of ‘high-quality studies’.

**C: Synthesis** – To enable synthesis (identification of patterns across studies) the authors use an existing {Hypothetical Worthy} model. In addition they identify their own categories of activities across studies (actor, decision support, involvement and systems). Both these approaches enable the reader to look across a body of studies rather than only engage at the level of individual studies.

**D: Analysis** – As a result of conducting the review and synthesis the authors are able to identify shared methodological limitations and gaps in the research base. General Presentation – The title, although not specific to a particular type of review indicates that a structured approach has been undertaken by the authors. It is noticeable that all four SALSA characteristics (A–D) are present in the Abstract indicating the high likelihood of use of structured approaches.