

# Snowballing in Systematic Literature Studies

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## ▼ What did the authors try to accomplish?

- Formulate a systematic snowballing procedure for systematic literature studies.
- Systematic way to search and find relevant literature

## ▼ What were the key elements of the approach?

### **Snowballing Procedure**

#### **1. Start Set**

- Identify a start set of papers using google scholar
- Search using keywords and relevant strings
- A good start set has the following characteristics:
  - ☐ Different communities are covered
  - ☐ Number of papers not too small
  - ☐ Relevant and highly cited papers
  - ☐ Covers several different publishers, years and authors
  - ☐ Does not miss papers using a slightly different terminology
- One possibility in snowballing is to identify a seminal and highly cited paper in the area of the systematic literature study

#### **2. Iterations**

- Full paper should be examined before deciding to use it as a paper in the snowballing

##### **1. Backward Snowballing**

- Use the reference list to identify new papers
- Exclude papers that not fulfill basic criteria such as *language, publication year, type of publication,...*

- Remove papers that have already been examined or excluded in previous iterations
- Exclude papers based on title, authors, publication venue.
- Look at the context of the reference (indicates the content of the paper)
- If it is still a candidate, read the most relevant parts

→ Make a decision about inclusion or exclusion of the paper

## 2. **Forward Snowballing**

- Identify new papers based on those papers citing the paper being examined
- Same exclusion procedure as in Backward Snowballing

## 3. **Inclusion and Exclusion**

- Decide on either inclusion or exclusion before starting to use a new paper
- Only papers found through included papers should be used in the analysis

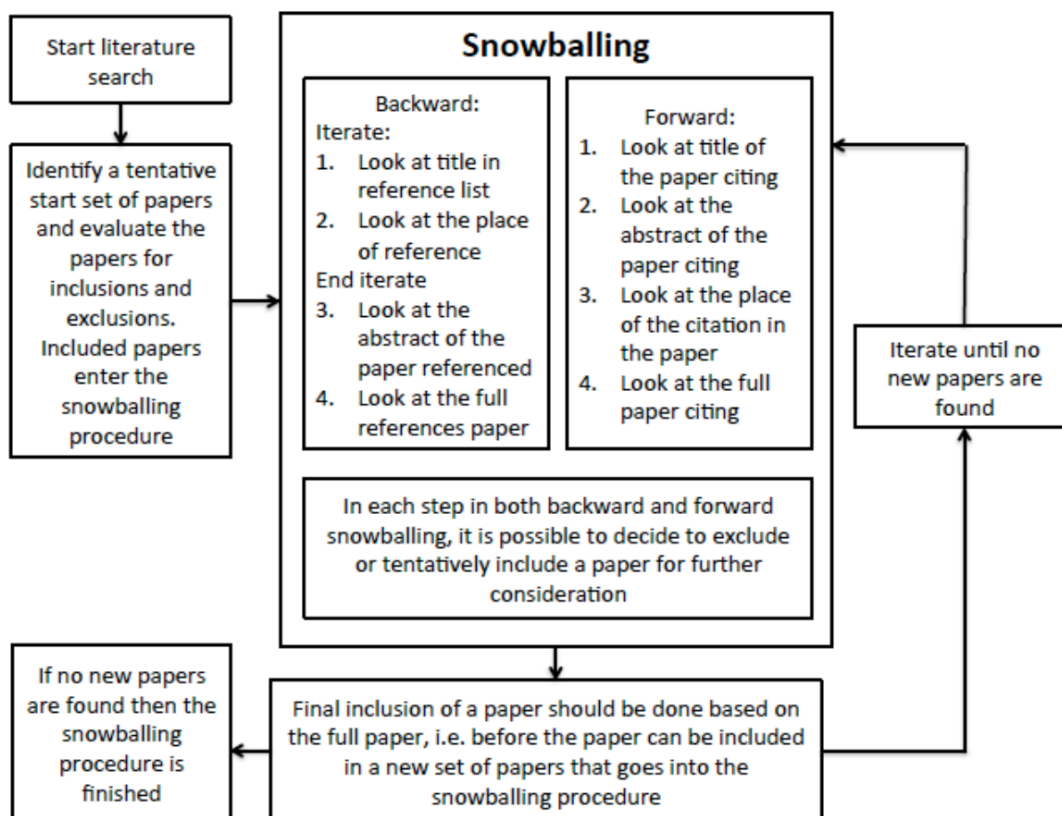


Figure 1. Snowballing procedure.

- (Contact authors of included papers to potentially identify some additional papers)
- Search in specific journals or conferences
- Conduct data extraction at same time as deciding whether the paper should be included or not

▼ What can you use yourself?

- Snowballing procedure

▼ What other references do you want to follow?

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