

# Systematic Literature Review Applied to a Research Project

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## EXECUTIVE SUMMARY

*Despite the growing importance of the literature review in the field of research, it presents some challenges in the area of communication. While it is common to find academic papers in the health field that use this method, its use is still limited in the social sciences. The present work aims to contribute to defining the method applied to a research project in the area of communication. To this end, it explains the importance of the replicability of the phases carried out, such as the location of the sources, the information search strategy, and the analysis and synthesis of scientific evidence. The steps of the said method are exemplified so that they can serve as a guide for other academic papers.*

## INTRODUCTION

Any academic research requires planning and organization that starts with contextualizing the object of study. In order to frame the research theoretically, it must start from an exhaustive search of the existing knowledge about the subject, for which a conscientious map of the relevant literature for the study question is drawn up. This is, in itself, a very valuable tool both for the researcher themselves and for future research since it allows those areas where there are deficiencies to be highlighted (Victor, 2008a).

In an overall way, it can be said that a Systematic Literature Review (SLR) is done to provide an exhaustive summary of the available literature in relation to a research question (García-Peñalvo, 2017). It must also be “a replicable, scientific and transparent process that aims to minimize bias through exhaustive literature searches of published and unpublished studies and by providing an audit trail of the reviewers’ decisions, procedures and conclusions (Transfield et al., 2003: 209)”. Systematic reviews will help the researcher to focus on the quality (or lack of quality) of the existing research, help prevent a duplication of research efforts, and provide additional information through the comparison and/or combination of individual research papers (Oakley et al., 2005). Furthermore, this method allows one to identify and discuss the best evidence, contradictory findings, and gaps in the literature (Gupta et al., 2018).

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The present work takes as an example a regional research project entitled “Media translation strategies for public information about air quality in Extremadura”, funded by grants for research projects in public R&D&i centres in the Region of Extremadura (2020 Call), and addresses its application. Research projects are an incentive to overcoming the main challenges of society as well as to promoting the links between science, society, and companies. This project specifically aims to design communication tools that help to implement and improve the transfer of applied knowledge about air quality through an open, asynchronous, and participatory communication channel for the general public.

The proposal that combines communication and predictive models is aimed at becoming a learning tool in Responsible Research and Innovation (RRI) for the different social strata through journalism and scientific dissemination. The complexity of addressing the object of study and narrowing the areas of interest make the application of the described method especially pertinent, since this project has to respond to the needs of different research groups such as AEROUEX (Aerobiology in Extremadura, BBB026) and AQUIMA (Chemical Analysis of the Environment, FQM020) from the perspective of communication.

Before designing tools or launching any action, it is necessary to find out what the state of the question is in relation to the areas covered by the project, what is known about communication concerning air quality, always relating it to the field of scientific dissemination and communication.

In order for the case presented here to be useful for future researchers, the literature selection process is exemplified by applying the systematic literature review method. To this end, a description will be given of the steps taken in the research group of the regional project in which the work is framed when the group is approaching a systematic review of the literature to allow it to know the existing bibliography relating to the communication, dissemination, and environmental education about air quality.

## **BACKGROUND**

The multiplication of sources and the need to systematize the findings have turned the systematic review of the literature into an incipient method (Atkinson & Cipriani, 2018; Almeida, 2018; Cooper et al., 2018). Its use in the health field is widespread (Mangas-Vega et al., 2018; García-Peñalvo, 2017; Richard Mallett, Zanker & Maren, 2012; Moher, Liberati, Tetzlaff, Altman, & The PRISMA group, 2009), and so it is growing its application in the social sciences (Davis et al., 2014). It is worth noting that, with the interest in creating concept maps about the subjects studied or the need to carry out a more exhaustive study of the field, the use of this type of method is increasing in the Social Sciences and Humanities (Mangas-Vega et al., 2018; Lee, Hayden, Ganshorn, & Pethrick, 2021). As an emerging method, it seems pertinent to lay the foundations and define the most relevant questions, since their correct application and use will determine the quality of the knowledge produced when applying the said method.

According to Gran & Booth (2009), there are different types of reviews:

- Comprehensive review articles of everything published: an annotated bibliography article that does not answer a specific question.
- Descriptive review articles: providing an update about useful concepts in constantly evolving areas.
- Systematic literature review articles: collecting and critically analysing multiple studies through systematic procedures.

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