Prisma Guidelines for Systematic and Scoping Reviews: Cultural Mapping of Creative Industries

Luana Santos, Ana Luísa Sousa and Luís Teixeira
Universidade Católica Portuguesa, CITAR – School of Arts, Porto, Portugal
s-lusacardoso@ucp.pt
alsousa@ucp.pt
lteixeira@ucp.pt

Abstract: While policymakers have had a great interest in debating Cultural and Creative Industries (CCIs), there is a lack of literature presenting a systematic overview of existing relevant research regarding CCIs mapping. This paper discusses and compares PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines for Systematic Review (SR) and PRISMA for Scoping Review (ScR) for synthesizing research on CCIs mapping. 'A systematic review attempts to collate all empirical evidence that fits pre-specified eligibility criteria to answer a specific research question. It uses explicit, systematic methods that are selected to minimize bias, thus providing reliable findings from which conclusions can be drawn and decisions made' (Liberati et al. 2009: 65). ScR '(…) follow a systematic approach to map evidence on a topic and identify main concepts, theories, sources, and knowledge gaps' (Tricco et al. 2018: 467). After analyzing and applying the guidelines and further documentation on both protocols, the ScR revealed to be more suitable in a complex field with distinct terminologies, production contexts, methodologies and objectives. Since certain topics in SR become optional, ScR is easier to apply in fields in which methods are difficult to compare and quantify, such as the Arts and Humanities.

Keywords: PRISMA, scoping review, systematic review, cultural mapping, Cultural and Creative Industries (CCIs)

1. Background

The original application of cultural mapping exercises is related to the study of indigenous communities. Its exact temporal origin is not precise: Crawhall (Ribeiro et al. 2020: 59) identifies the 1960s and Currie and Correa (2021: 90) the 1970s as the first attempts at the practice. Over the years, and following the growing complexity of society, the focus of this type of study broadens, being applied to the urban contexts (Currie and Correa 2021: 91).

The growing recognition of creativity as key for economic development in the last two decades, sparked evidence-based policies (Ponzini, Gugu and Oppio 2014: 75) and the regeneration of cities and regions (Evans and Foord 2008). This aroused interest on the behalf of policymakers who started promoting cultural mapping exercises focusing on Cultural and Creative Industries (CCIs) as an initial phase within cultural planning. Cultural mapping is a vital phase in policymaking of communities, being villages, cities or regions, as it allows effective territorial planning, resource management, tourism management, amongst others, built on the awareness of cultural assets in the area. Moreover, cultural mapping can be developed in direct articulation with the community, both to map their resources and for their empowerment (Duxbury et al., in Currie and Correa 2021: 91). Cultural management is about achieving an equilibrium between developing the tourism industry, generating revenue whilst still preserving the physical integrity of sites, promoting as well as celebrating their historic, cultural values and artistic practices. Amongst the outcomes resulting from this practice Porrello, Talone and Collovini (2010: 4-5) indicate: documentation about cultural resources, community empowerment, effective management of cultural resources, economic development of the community, transmission of local knowledge systems, and promotion of intercultural dialogue.

2. Objective

This paper is part of an ongoing investigation on cultural mapping CCIs. Since systematic scientific methods are not usually applied to research in the Arts and Humanities, it is relevant to understand how they can contribute to its rigor and replicability. Thus, the paper aims to compare and reflect on the suitability of systematic and scoping reviews for the investigation. Although both can guide state of the art investigations, identify knowledge gaps and future research needs, they comprehend some variations: SR 'can identify problems in primary research that should be rectified in future studies' and 'can generate or evaluate theories about how or why phenomena occur' (Page et al. 2021: 1) and ScR can be used to 'determine the value of undertaking a systematic review' and 'summarize findings from a body of knowledge that is heterogeneous in methods or discipline' (Tricco et al.; Canadian Institutes of Health Research, in Tricco et al. 2018: 467).

3. Methodology

To fulfill the objective, PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) for systematic reviews (SR) and PRISMA for scoping reviews (ScR) will be compared based on its guidelines and related documentation.

4. Results

Table 1: places PRISMA SR and PRISMA-ScR checklists side by side, enabling an explicit identification of the required topics:

SECTION	TOPIC	
	Systematic review (SR)	Scoping Review (ScR)
Title	Title	Title
Abstract	Abstract	Structured summary
Introduction	Rationale Objectives	Rationale Objectives
Methods	Eligibility Criteria Information Sources Search Strategy Selection process Data collection process Data items Study risk of bias assessment Effect measures Synthesis methods Reporting bias assessment Certainty assessment	Protocol and registration Eligibility Criteria Information Sources Search Selection of sources of evidence Data charting process Data items Critical appraisal of individual sources of evidence* Synthesis of results
Results	Study selection Study characteristics Risk of bias in studies Results of individual studies Results of syntheses Reporting biases Certainty of evidence	Selection of sources of evidence Characteristics of sources of evidence Critical appraisal within sources of evidence* Results of individual sources of evidence Synthesis of results
Discussion	Discussion	Summary of evidence Limitations Conclusions
Other information/ Funding	Registration and protocol Support Competing interests Availability of data, code and other materials	Funding

Table 1. Comparison of PRISMA checklists for SR (Page et al. 2021: 4-5) and ScR (Tricco et al. 2018: 471).
* Optional items.

The two protocols have a similar structure in terms of key sections, slightly differing in the terminologies and required information for each topic.

- *Title* - both begin by requesting a title that specifies the type of review. That is, whether it consists of a SR or a ScR.
- *Abstract* - results from the succinct identification of the checklist elements that are explored in greater detail in the remaining stages. This element aims to present an overview of the article's content, allowing readers to identify its relevance to their knowledge or investigation (Beller et al.; Hopewell et al.; Haynes et al., in Tricco et al. 2018). In the case of SR, it is detailed in a specific extension - *PRISMA 2020 extension for Abstracts*. It should address *title*, *background* (main objectives or research questions the review is trying to answer), *methods* (eligibility criteria, information sources, risk of bias, synthesis of results),

results (included studies and synthesis of results), *discussion* (limitations of evidence, interpretation), and *other* (funding, registration). The abstract for ScR has a similar structure, differing in the fact that it does not include biases, nor the *other* (that is funding and registration).

- *Methods* - PRISMA SR solicits information that is not requested for PRISMA-ScR, namely:
- *Study risk of bias assessment* - specification of the bias inherent to each of the eligible studies by referring to possible methodological tools for this assessment. The number of researchers involved and their work methodology can also be mentioned.
- *Effect measures* - specification of the measures for evaluation used in the process of synthesis and presentation of the results (e.g. risk ratio, mean difference) (Page et al., 2020: 4).
- *Synthesis methods* - detailed description of the methodological steps used for the synthesis of information and results, as well as methods to manage the lack of summary statistics or data conversions.
- *Reporting bias assessment* - report the bias associated with the research selection, analysis and discussion process.
- *Certainty assessment* - methods used to evaluate certainty or confidence in the body of evidence after a critical assessment of the types of associated biases.

PRISMA-ScR includes, in this section, the *protocol and registration* (if it exists, is applied and and how it can be accessed (Tricco et al. 2018: 471)), *critical appraisal of individual sources of evidence* (optional item to critically describe the process of selecting information sources, resembling the *effect measures* and *certainty assessment* of SR), and *synthesis of results* (description of methods for managing and summarizing the results, allowing for an overview of the evidence collected) (Peters et al. [a]; Peters et al. [b]; in Tricco et al. 2018).

- *Results* - the inclusion of the following items is expected for SR:
- *Risk of bias in studies* - application of the methods defined in the topic *study risk of bias assessment* (of the *methods* section) to present the bias of studies included in the review.
- *Reporting biases* - implementation of methods for *reporting bias assessment* (*methods* section).
- *Certainty of evidence* - application of the *certainty assessment* (*methods* section).

It is optional to present a *critical appraisal within individual sources of evidence* in ScR, a step done in accordance with the methods stipulated in *critical appraisal of individual sources of evidence* (*methods* section). The last topic of ScR for this section is *synthesis of results*, entitled *results of syntheses* in PRISMA SR. Although in both cases the results are organized in a summarized and comparable form to answer the objectives or research questions, ScR does not presuppose the registration of the sensitivity or robustness of the studies. It favors a more distant analysis from statistical references.

- *Discussion* - In PRISMA-ScR this topic is broken down into *summary of evidence*, *limitations* and *conclusions*. Regarding the content of the *discussion*, both SR and ScR aggregate and ask for the same requirements: results obtained, critical assessment of the study's difficulties and limitations, potential contribution to the research area and possible future work directions.
- *Other information* in SR suggests a reference to:
- *Registration and protocol*: details information about the registration and protocol used in the review process. It aims to ensure that the investigation process is not arbitrary and that the decisions involved at each stage are legitimate. This safeguards the transparency of the study and confidence in the SR findings.
- *Support*
- *Competing interests*
- *Availability of data, code and other materials*

The last section of the ScR is *funding*, with no other element required.

5. Discussion

The first attempt at synthesizing evidence about cultural mapping was to follow the SR protocol. However, it was not thought to be suitable to study the encountered information as the area of expertise is broad (since cultural mapping is a matter of interest to various subject areas like Social Sciences, Arts and Humanities, Economics or Computer Science), the literature is published in wide range of sources, and has porous conceptual boundaries (compromising the comparison between papers' methods and results).

PRISMA SR guidelines are primarily focused on reporting effects of interventions (Moher et al. 2009: 334) or on 'evaluating aetiology, prevalence, diagnosis or prognosis' (Page et al. 2021: 2), hence usually applied in clinical or laboratorial practices where population, context and study design must be detailed. By requesting a clear identification of the methods used, SR guidelines foster the collection of a sample with comparable characteristics. Humanities and Arts, among other fields, are not exact mathematical sciences and do not usually have this kind of precision when reporting their research procedures. Thus, in most of the papers analyzed regarding the topic, the methodologies were unclear or non-explicit, making it difficult to compare the results and provide accurate findings.

Assessing the bias of the papers' methodologies and results, as well as the *effect measures* and *certainty assessment* topics for SR was unattainable. These are not required in the case of conducting a ScR.

In addition, the major difference between the two approaches is related to the synthesis of data. Whereas SR privileges the synthesis of information gathered from sources eligible in accordance with narrow research questions, explicit methodologies, and samples; ScR departs from broader questions (Tricco et al. 2018: 467) and therefore can encompass a larger selection of papers. SR presupposes a more accurate description of the process for data collection, selection and results presentation, while ScR synthesizes information but also contemplates a description and interpretation of the results according to the studies' objectives or research questions. Having all things considered, it proved to be more effective to apply PRISMA-ScR to our investigation.

6. Conclusions

Both SR and ScR follow a systematic approach to summarize and analyze evidence eligible in accordance with defined research questions. By implying the description of all the steps, following those guidelines enhances the transparency of the processes undertaken (Altman and Simera; Moher et al., in Tricco et al. 2018: 467), ensures that the value of the investigation and its subsequent findings are preserved and can be further applied in decision and policymaking (Liberati et al. 2009).

Doubts were raised on whether to implement a SR or a ScR within the reach of cultural mapping CCIs. After comparing the requirements of each protocol and its subsequent practical application, SCR proved to be the most suitable protocol for the intended research. It allowed the treatment of the heterogeneous body of knowledge, in methods and disciplines, that we have encountered. (Tricco et al. 2018: 467)

Other information

References

Currie, M., Correa, M. (2021) "Tangibles, intangibles and other tensions in the Culture and Communities Mapping Project", *Cultural Trends*, vol. 31, no.1, pp. 88–106.

Evans, G. and Foord, J. (2008) "Cultural mapping and sustainable communities: Planning for the arts revisited", *Cultural Trends*, vol. 17, no. 2, June, pp. 65–96.

Liberati, A. et al. (2009) "The PRISMA Statement for Reporting Systematic Reviews and Meta-Analyses of Studies That Evaluate Health Care Interventions: Explanation and Elaboration", *BMJ,* vol. 339, June.

Moher, D. et al. (2009) "Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement", *BMJ,* vol. 339, August, pp. 332–336.

Page, M. J. et al. (2021) "The PRISMA 2020 statement: an updated guideline for reporting systematic reviews", *BMJ*, vol. 372, no. 71, January, pp. 1-9.

Ponzini, D., Gugu, S. and Oppio, A. (2014) "Is the concept of the cultural district appropriate for both analysis and policymaking? Two cases in Northern Italy", *City, Culture and Society*, vol. 5, no. 2, June, pp. 75–85.

Porrello, A., Talone, A. and Collovini, D. A. (2010) "Cultural mapping: The semantic web as a survey tool for the construction of the cultural plan", Paper read at 24th AESOP Annual Conference, Finland, July.

Ribeiro, V. et al. (2020) "Geo-crowdsourcing contributions for cultural mapping", *Journal of Information Science Theory and Practice*, vol. 8, no. 1, December, pp. 56–67.

Tricco et al. (2018) "PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and Explanation", *Annals of Internal Medicine*, vol. 169, no. 7, September, pp. 467–473.