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# Hopscotch Building: A Model for the Generation of Qualitative Research Designs

## Abstract

In this article we describe the process followed in the creation of the “Hopscotch Model,” a tool to help novice researchers thoroughly design qualitative research studies while learning the philosophical underpinnings of this particular form of research. The model helps to incorporate the theoretical background behind any qualitative study, as well as the intrinsic complexity of the multiple technical procedures that could be followed within the many different traditions in the field. Hopscotch is supported by an easy to use web-tool that drives potential users through the design of qualitative studies. In this article we describe the phases followed to generate the conceptual model and the web-tool. We conceived the Hopscotch model as a “boundary object,” plastic-enough to adapt to local needs and constraints of the stakeholders using it, yet robust enough to maintain a common identity across different communities, frameworks and possible scenarios in which it could be employed. Therefore, the proposed model is not intended to be complete nor prescriptive, but a flexible tool that can evolve and be completed by anyone. Even though a formal evaluation of the model and web-tool has not been conducted, in this work we present usage data supporting the usefulness of our proposal.

## Keywords

Qualitative Research Design, Boundary Object, Hopscotch Model

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## **Hopscotch Building: A Model for the Generation of Qualitative Research Designs**

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**Abstract:** In this article we describe the process followed in the creation of the “Hopscotch Model,” a tool to help novice researchers thoroughly design qualitative research studies while learning the philosophical underpinnings of this particular form of research. The model helps to incorporate the theoretical background behind any qualitative study, as well as the intrinsic complexity of the multiple technical procedures that could be followed within the many different traditions in the field. Hopscotch is supported by an easy to use web-tool that drives potential users through the design of qualitative studies. In this article we describe the phases followed to generate the conceptual model and the web-tool. We conceived the Hopscotch model as a “boundary object,” plastic-enough to adapt to local needs and constraints of the stakeholders using it, yet robust enough to maintain a common identity across different communities, frameworks and possible scenarios in which it could be employed. Therefore, the proposed model is not intended to be complete nor prescriptive, but a flexible tool that can evolve and be completed by anyone. Even though a formal evaluation of the model and web-tool has not been conducted, in this work we present usage data supporting the usefulness of our proposal.

*Keywords:* Qualitative Research Design, Boundary Object, the Hopscotch Model.

## **Hopscotch Building: A Model for the Generation of Qualitative Research Designs**

### **Introduction**

When teaching qualitative research methods it is easy to find doctoral students who are overwhelmed by the plethora of philosophical frameworks, research traditions, and methods existing within this field of research (Groenewald, 2004). The complexity of designing qualitative studies in addition to the intrinsic nature of qualitative research (i.e. study of real-world situations; flexible and evolving research designs; search for the uniqueness and particularity of the situations under study; and the complex, dense and collage-like research products generated) makes it especially difficult for novice researchers to find clear paths to generate well-informed qualitative research designs (QRDs) for their capstone projects, research assignments, or even their doctoral proposals.

The need to provide a response to this, in addition to the many professional issues found in my own career while teaching qualitative research methods, led me to initiate the process of generating the model and web-tool proposed in this article: The Hopscotch Model. To do so, I justify in the first section the necessity of a new model based on the analysis of those previously existing. In section two I offer a detailed description of the process followed in the generation of the model and the web-tool created for its implementation. In section three, I discuss some initial tentative results regarding the use of the model and web-tool in the past year, while in the final section I propose a number of aspects to help enhance the model in the future.

### **Previous studies: Why a model, why this model?**

Even though qualitative research has flourished during the last two decades in all social sciences (Denzin & Lincoln, 2011), it seems that despite the abundance of publications dedicated to qualitative research (Hazzan & Nutov, 2014) and a clear increase in projects based on qualitative methods, questions concerning the teaching and learning of qualitative methods are given comparatively little attention (Günter, 2008). Moreover, recent research in the art of teaching and learning qualitative research (Breuer & Schreier, 2007; Günter, 2008; Hammersley, 2004), underscores the need for guiding frameworks to comprehensively learn these particular research methods. These frameworks are needed due to the fact that teaching and learning qualitative methods is even more challenging than using them in a given study (Hazzan & Nutov, 2014). As stated by Breuer & Schreier (2017), there are two main trends in teaching and learning qualitative research: the paradigmatic and the pragmatic. In the first one, the process of learning this particular form of research is understood as a craft to be practiced together by a "master" and an "apprentice." On the contrary, the pragmatic approach understands qualitative research methods as techniques that can be applied in the sense of recipes, with specific steps to be carried out. Both approaches have strengths and drawbacks. The paradigmatic trend helps students understand the theoretical and philosophical dimensions of qualitative research methods, while the pragmatic is more focused on practical issues researchers find when generating and implementing qualitative research studies. It is relevant for researchers to philosophically frame their practices and their particular way of understanding how things work in the world, but it is probably not enough to put together solid research designs to be implemented in real-world scenarios. On the contrary, understanding qualitative research as a set of mere decontextualized

steps or recipes to be automatically followed is far from the epistemology and aims of this form of naturalistic inquiry.

Authors like Poulin (2007) and McMullen (2002) have identified philosophical underpinnings of research as an important foundation for training in qualitative inquiry. Others like Tracy (2010) propose the definition of criteria, rules, and guidelines to help students become qualitative researchers. This last trend is also supported by the famous work of Dreyfus, Dreyfus & Athanasiou (1986, p.176), who stated that “novices and advanced beginners in any craft rely heavily on rule-based structures to learn. Guidelines provide a path to expertise.”

The previous studies suggest the need of a trade-off between both approaches to teaching (and understanding) qualitative research. However, is it possible to do so by using a single model to help novice researchers generate philosophically sound and practical qualitative research designs while learning in collaboration with others? A review of previous work in the field is needed before responding to this question.

Several authors have contributed sequences and strategies to help the generation of QRDs (Creswell, 2013; Stake, 2005; Yin, 2011; Maxwell, 2008; Walsh & Downe, 2006), etc. However, most of these attempts are either deeply related to a particular research tradition or they constitute partial solutions. That is the case, for instance, of Walsh and Downe’s model (2006), which offers a set of prompts relating eight key aspects when designing qualitative studies. The model provides a set of questions regarding: the scope and purpose of the study; its design; the sampling strategies to be used; the analysis; interpretation; reflexivity; ethical dimensions; as well as relevance and transferability. Even though it constitutes a thoughtful model that covers most of the aspects to be taken into consideration when generating QRDs, it focuses more on providing a

checklist of general issues to be considered than in offering a thorough guide for novice researchers.

Other more holistic models such as Maxwell's (2008) *Interactive Model*, is based on the interaction among five components (goals, conceptual framework, research questions, methods, and validity). This offers an outstanding comprehensive rationale; however, because of its complexity, it could be overwhelming for novice researchers.

Other key authors in the field of qualitative research such as Robert Stake, John Creswell, Yvonna Lincoln, Robert Yin, or Norman Denzin, have published extensive theoretical manuals on qualitative research methods, undoubtedly constituting a benchmark in the field. These manuals resist providing comprehensive design models/frameworks for contravening somehow, the non-directive nature that by default is attributed to this type of research.

In my own practice as a faculty member teaching qualitative research methods to doctoral students, I found it useful to integrate components of some of the previously mentioned design models. The “mongrel” resulting from the combination of ideas, steps and procedures coming from these previous design models, has helped balance paradigmatic and pragmatic teaching. However, this informal process of integration of components from previously existing design models in the field lacked a more solid and evidence-based process. This was the initial aim for the creation of the Hopscotch; a model to bridge paradigmatic and pragmatic approaches to teaching and learning qualitative research methods.

### **Methods: Steps followed towards the creation of the model**

The creation of a theoretical/practical model is always a complex task and somewhat daring. The challenge is bigger when trying to summarize the complexity of such a profuse, diverse, and fragmented field as that of qualitative research.

We understand the model proposed in this paper as a "boundary object" (Star & Griesemer, 1989) aiming at determining a number of possible steps to be followed in the generation of QRDs flexible-enough to suit the needs and contextual constraints of researchers applying it, while robust enough to maintain a common identity across different communities, practices, and trends in the field of qualitative research. Therefore, the proposed model is not intended to be complete nor prescriptive, but a flexible tool that can evolve and be completed by anyone who implements it. The Model was created with the aim of:

- Giving answer to the complete lifecycle in the generation of qualitative research designs.
- Being applicable to a wide range of research traditions.
- Offering a tool for novice researchers to not only generate research designs but to also train themselves in the philosophical underpinnings behind this particular form of research, while doing it.
- Providing an interactive tool mediated by technology to help the design process based on examples.

The steps followed in building the model were as follows:

**Phase 1: Selection of seminal works in the field of qualitative research related to the creation of research designs.**

During the first stage of the process we selected a number of seminal works in the field to study different existing proposals regarding the stages and design considerations to be included in QRDs. For the selection of these works we used *Web of Science* and *Scopus*. We conducted searches under the terms "Qualitative Research / Design / Methods," retrieving more than 75,000 entries. In the case of Web of Science we narrowed down the search by delimiting the period under review from 1990 to 2015, within "Education / Educational Research" fields, obtaining



511 results. In the case of Scopus, we also restricted the search to the same period, in this case within the fields of "Social Sciences & Humanities / Social Sciences / Qualitative Research," getting 708 entries. We organized the results according to the number of citations received, and we only selected the ones with more than ten references. Surprisingly, the results did not show the works traditionally considered as highly relevant in the field of qualitative research, but high-impact articles in various fields in which the methodology of the described studies was qualitative. This can be understood considering since most seminal works in the field are in the form of handbooks and manuals, which are out of the scope of the databases used in our study. In order to address this unexpected result, we decided to conduct an analysis of the references cited within the retrieved results. Following this process, we came to select the following nine seminal works that formed the basis of our analysis:

- Miles, M. B., & Huberman, M. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. Newbury Park, CA, USA: Sage Publications.
- Denzin, N. K., Lincoln, Y. S. (2003). *Collecting and interpreting qualitative materials*. Thousand Oaks, CA: Sage Publications.
- Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education For Information*, 22(2), 63-75.
- Guba, E., & Lincoln, Y. S. (2005). *Paradigmatic controversies, contradictions, and emerging confluences*. In N. K. Denzin & Y. S. Lincoln, *The Sage handbook of qualitative research* (3rd ed., pp. 191-215). Thousand Oaks, CA: Sage.
- Maxwell, J.A. (2008). Designing a qualitative study, in L. Bickman & D.J. Rog (Eds.), *Handbook of Applied Social Science Research Methods*. Thousand Oaks, CA: Sage
- Stake, R. E. (2010). *Qualitative Research: Studying How things work*. New York: The Guilford Press.
- Chenail, R. J. (2011). Ten Steps for Conceptualizing and Conducting Qualitative Research Studies in a Pragmatically Curious Manner. *Qualitative Report*, 16(6), 1713-1730.
- Yin, R. K. (2011). *Qualitative research from start to finish*. New York: Guilford Press.
- Creswell, J. W. (2013). *Qualitative Inquiry and Research Design: Choosing among Five Traditions*. Thousand Oaks, CA: Sage.

## **Phase 2: Analysis of emerging common features of selected works**

Once the nine works, including books, book chapters, and articles were selected, we conducted a detailed analysis of each of them applying an open coding process (Creswell, 2013) using Atlas.ti 7 (2013) (See figure 1).

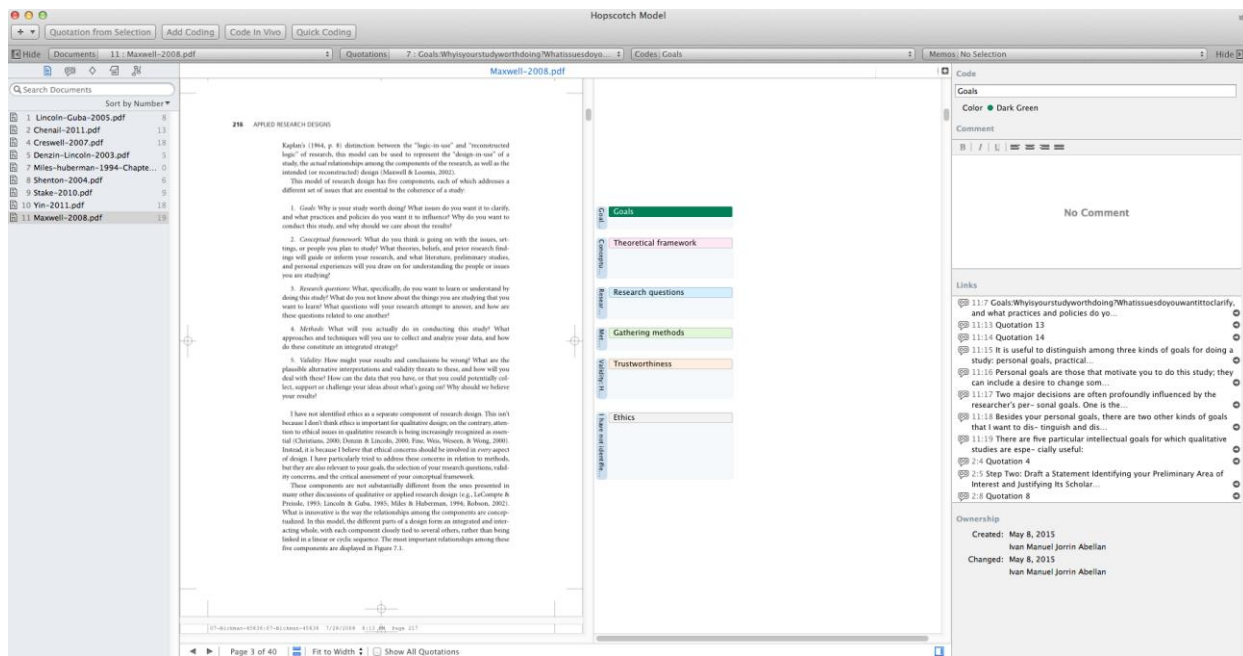


Figure 1. Example of the analysis of the seminal works using Atlas.ti

The coding process helped identify the stages that were considered key in the generation of QRDs. Once the emerging codes were refined and fused, the following set of dimensions emerged as prevalent:

1. Definition of the goals of the study.
2. Identification of the researcher's Worldview.
3. Description of the theoretical framework of the study.
4. Definition of the research questions driving the study.
5. Identification of the research tradition followed in the study.
6. Description of the data gathering methods.
7. Description of the data analysis techniques.

8. Elaborating the narrative report.
9. Definition of the strategies to assure the trustworthiness of the study.
10. Definition of the ethical principles driving the study.

Figure 2 shows the network generated when using the “Network View” feature in Atlas.ti, for the analysis conducted. The figure helps to visualize the relationship between a selection of the quotations coded in each of the analyzed documents (in yellow) and the ten emergent dimensions of analysis (codes) (in different colors).

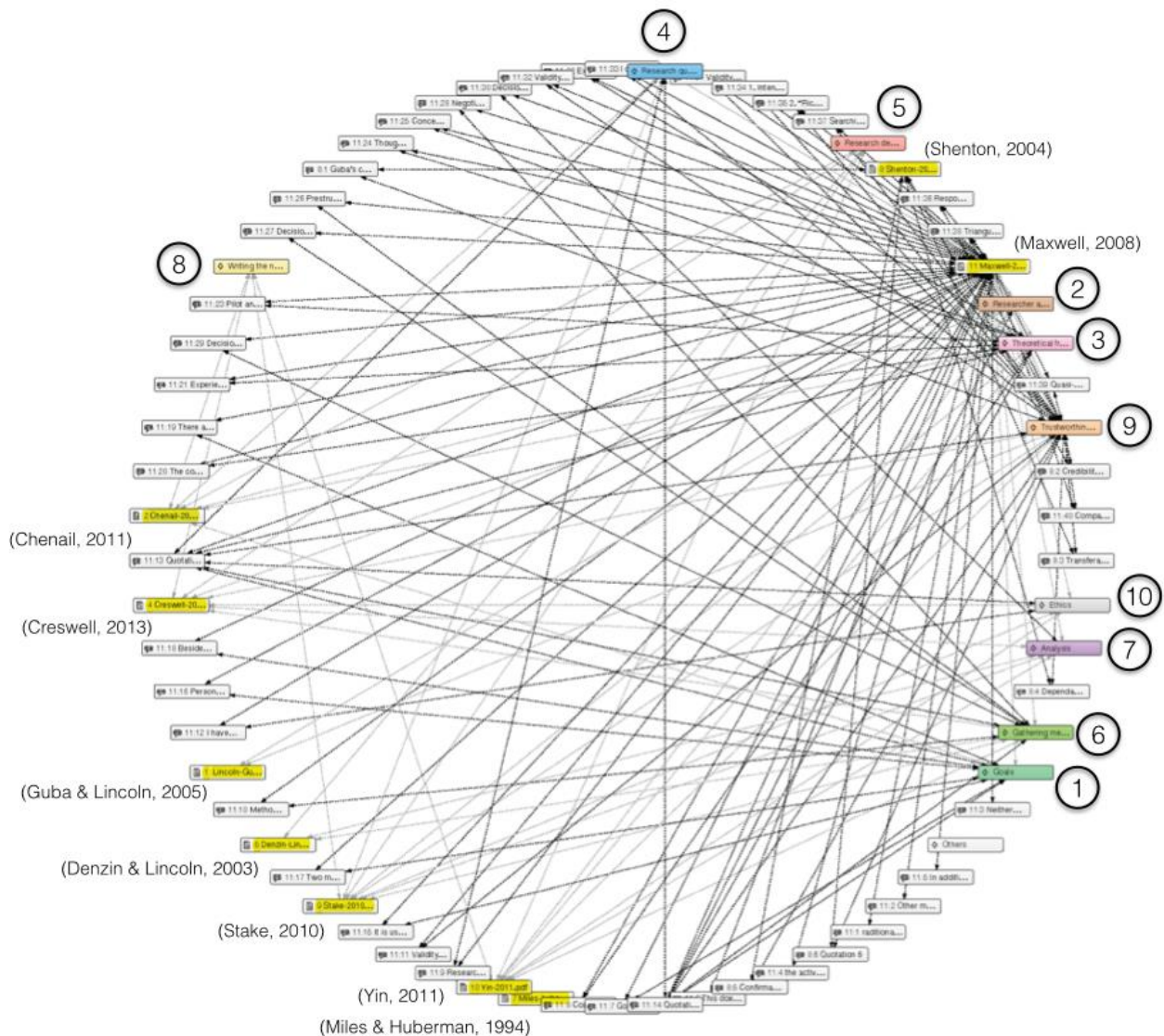


Figure 2. Network view of the analyzed documents

A more detailed study of the analysis conducted for each of the seminal documents allows a better understanding of the depth of the coding process followed. Figure 3 displays the "Network View" obtained from the analysis of Creswell's work (2013). The figure shows that the author focuses the steps of generating QRDs in: the *a priori* definition of the Worldview of the researcher; the definition of a conceptual and methodological framework for the study to be conducted; the definition of research questions; the ascription of the study to a specific research tradition in the field (ethnography, phenomenology, narrative research, case studies, grounded theory); the definition of the data collection techniques; the definition of the data analysis strategies; the definition of the strategies to assure the validity of the study; and the description of the ethical principles guiding the whole process.

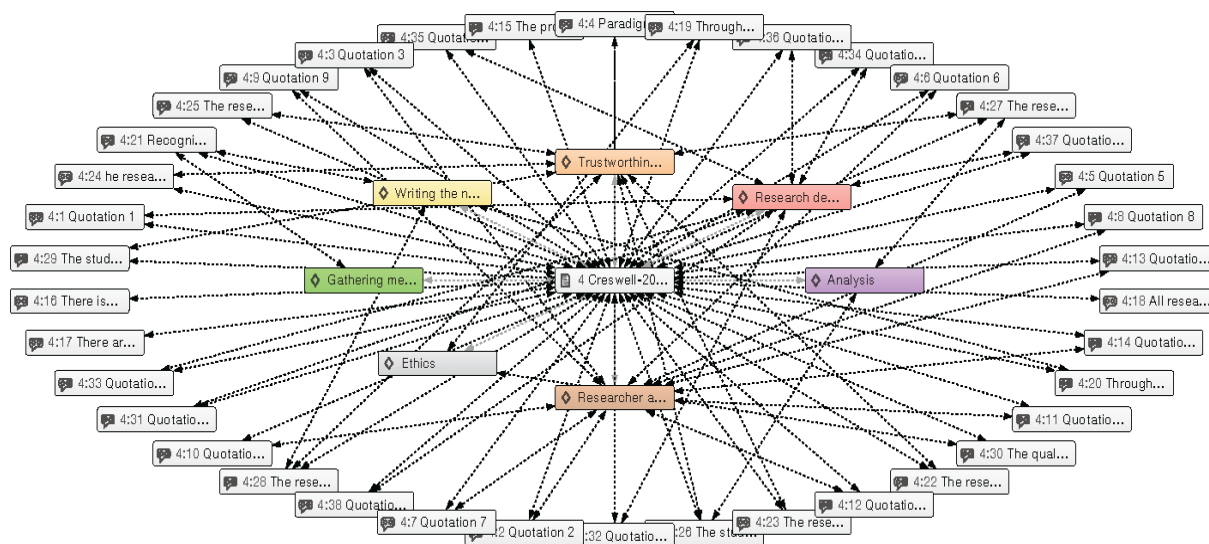


Figure 3. Network view (Creswell, 2013)

Maxwell (2008) (Figure 4) highlights almost the same elements proposed by Creswell, but he also incorporates a detailed definition of the research objectives driving a study, according to three levels: personal, practical and intellectual. Although both authors refer to virtually the same elements, they reference them with different names.

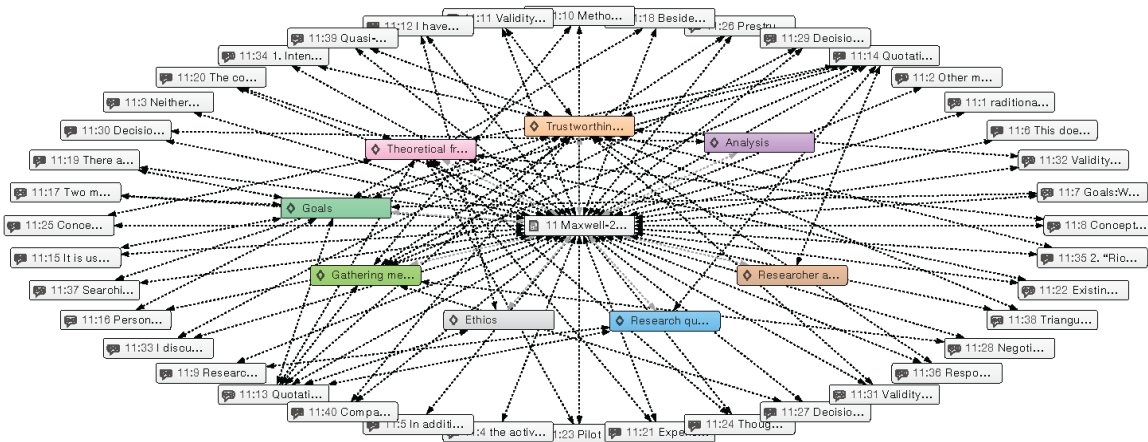


Figure 4. Network view (Maxwell, 2008)

In the analysis of Shenton’s (2004), the results obtained were more succinct. In this case quotations were grouped around only one emergent dimension. As shown in Figure 5, his work focuses eminently on what he calls the “Strategies of Trustworthiness” every researcher should incorporate into their QRDs to assure the credibility of the study.

Table 1 shows examples of quotations that were coded within the aforementioned three examples. They illustrate the process followed in phase 2 to define the ten emergent dimensions of analysis (codes).

For the sake of brevity we cannot discuss the analysis of the remaining six seminal works. However, Figure 6 shows an overview of the different dimensions that emerged from the analyzed documents. These dimensions (Figure 6) were organized and used to design the components of our own model, as explained in the next sub-section.

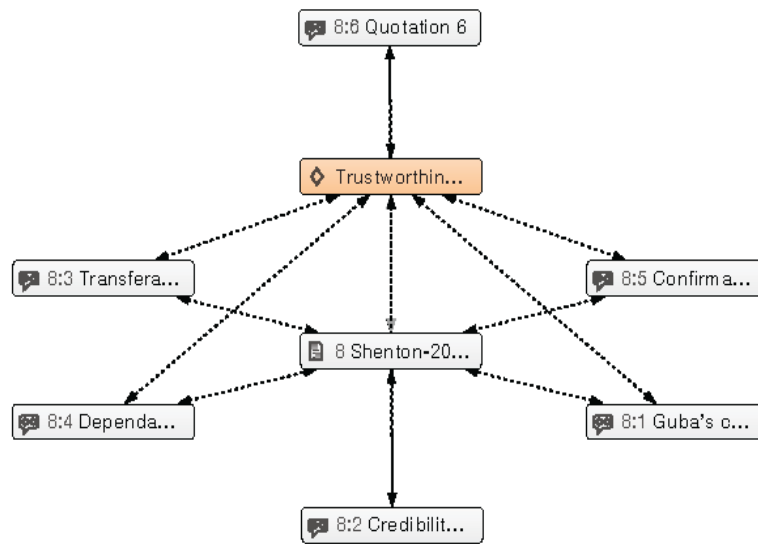


Figure 5. Network view (Shenton, 2004)

Document	Dimension	Evidence/quotations from the analysis
(Creswell, 2013)	Identification of the researcher's Worldview	<p><i>The research design process in qualitative research begins with <b>philosophical assumptions</b> that the inquirers make in deciding to undertake a qualitative study. In addition, researchers bring their own worldviews, paradigms, or sets of beliefs to the research project, and these inform the conduct and writing of the qualitative study (Chapter 2, pp. 15).</i></p> <p><i>The assumptions reflect a particular stance that researchers make when they choose qualitative research. After researchers make this choice, they then further shape their research by bringing to the inquiry paradigms or worldviews. A paradigm or worldview is "a basic set of beliefs that guide action" (Guba, 1990, p. 17) (Chapter 2, pp. 19).</i></p> <p><i>Qualitative research begins with assumptions, a <b>worldview</b>, the possible use of a theoretical lens, and the study of research problems inquiring into the meaning individuals or groups ascribe to a social or human problem (Chapter 3, pp.37)</i></p> <p><i>The process of designing a qualitative study begins not with the methods which is actually the easiest part of research, I believe-but instead with the broad assumptions central to qualitative inquiry, a <b>worldview</b> consistent with it, and in many cases, a theoretical lens that shapes the study (Chapter 3, pp. 42).</i></p>
(Maxwell, 2008)	Definition of the goals of the study	<p><i>This model of research design has five components, each of which addresses a different set of issues that are essential to the coherence of a study: 1. <b>Goals</b>: Why is your study worth doing? What issues do you want it to clarify, and what practices and policies do you want it to influence? Why do you want to conduct this study, and why should we care about the results?(Chapter 7, pp. 216).</i></p>

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		<p><i>The upper triangle of this model should be a closely integrated unit. <b>Your research questions should have a clear relationship to the goals of your study</b> and should be informed by what is already known about the phenomena you are studying and the theoretical concepts and models that can be applied to these phenomena (Chapter 7, pp. 217).</i></p> <p><i>In addition, <b>the goals of your study should be informed by current theory and knowledge</b>, while your decisions about what theory and knowledge are relevant depend on your goals and questions (Chapter 7, pp. 217).</i></p> <p><i><b>Without a clear sense of the goals of your research</b>, you are apt to lose your focus and spend your time and effort doing things that won't contribute to these goals. (Chapter 7, pp. 219).</i></p> <p><i>It is useful to distinguish among <b>three kinds of goals for doing a study</b>: personal goals, practical goals, and intellectual goals (Chapter 7, pp. 219).</i></p>
(Shenton, 2004)	Definition of the strategies to assure the trustworthiness of the study.	<p><i>Although many critics are reluctant to accept the trustworthiness of qualitative research, frameworks for ensuring rigour in this form of work have been in existence for many years (Shenton, pp. 63)</i></p> <p><i>Guba, who proposes four criteria that he believes should be considered by qualitative researchers in pursuit of a trustworthy study. Guba's constructs correspond to the criteria employed by the positivist investigator:</i></p> <ul style="list-style-type: none"> <li><i>a) credibility (in preference to internal validity);</i></li> <li><i>b) transferability (in preference to external validity/generalisability);</i></li> <li><i>c) dependability (in preference to reliability);</i></li> <li><i>d) confirmability (in preference to objectivity).</i></li> </ul> <p>(Shenton, pp. 63)</p>

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Table 1. Sample of Quotations coded with Atlas.ti in Phase 2 for the provided examples

### Phase 3: Proposal of the Hopscotch Model

Once we compiled the dimensions key authors considered relevant to the generation of QRDs, we proceeded to their organization and sequential structure. Figure 7 shows the steps we incorporated in our model as well as the seminal works from which they were selected.

A detailed description of the steps conforming the Hopscotch Model can be found in Jorrín-Abellán (2015) as well as in the website<sup>1</sup> created to disseminate the model.

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<sup>1</sup> <http://hopscotchmodel.blogspot.com/p/steps-of-model.html>



In order to give greater meaning to our model, in addition to making it visually understandable and attractive to potential users, we chose to use the metaphor of a hopscotch. The hopscotch is a traditional game that is present in many cultures under different names such as “Tejo” in Argentina; “Amerelinha” in Brasil; “Hopscotch” in England and USA; or “Rayuela” in Spain.

Steps within the Hopscotch Model	Miles & Huberman (1994)	Denzin & Lincoln (2003)	Shenton (2004)	Guba & Lincoln (2005)	Maxwell (2008)	Stake (2010)	Chenail (2011)	Yin (2011)	Creswell (2013)
Step 1: Worldview of the researcher									
Step 2: Goals of the study									
Step 3: Conceptual Framework of the study									
Step 4: Research Questions of the study									
Step 5: Research tradition driving the study									
Step 6: Data gathering methods									
Step 7: Data analysis procedures									
Step 8: Credibility and trustworthiness									
Step 9: Ethical principles driving the study.									
Complement: Elaborating the narrative report.									

Figure 6. Organization of emergent dimensions in the studied seminal works

The transcultural and transcendental nature of this game, along with its clear and simple rules, led to it serving as the organizational metaphor for the model (See figure 7). The metaphor, far from raising a linear, prescriptive and fixed structure to generate QRDs, reinforces the idea of going over each of the steps each time we advance to a new one. This repetitiveness becomes a key aspect; the nature of progressive focus in qualitative research highlights the impact that every change we make will influence the remaining steps conforming our design.





Figure 7. Steps and visual representation of the Hopscotch Model.

#### Phase 4: Creation of a web-tool to support the model

Finally, in order to connect the theoretical and practical sides of the model, we developed a web-tool to support it. After analyzing several options such as Google Sites, Wordpress, and Drupal, we chose to use Blogger as the basis for the web-tool, mainly because of its flexibility to integrate additional 2.0 technologies. The tool is based on a set of forms using Google Scripts, that allow the system to guide the user through the stages of the model. With the aim of helping users to make informed decisions, the system provides both textual and multimedia information within each step. Depending on the research tradition selected in Step 5, the system will drive the user through one of the five different itineraries that have been created. Once the steps are completed, the tool automatically sends an e-mail to the user, with the complete research design in a pdf document. Figure 8 shows the script generated to manage the functionality of the created system.

The web-tool also allows the sharing of the research designs created. These designs might be used by future novice researchers as examples of qualitative research designs that adopt the five different forms currently permitted by the model (Narrative Research studies;

Phenomenological studies; Ethnographical studies; Case studies; Grounded Theory studies; and Action Research studies).

The web-tool can be accessed at: <http://hopscotchmodel.blogspot.com>.

```

Código.gs x
1  var docTemplate = "IgpzYmo8hr0ZyikPgfMjBKvMg0qYHi735BH7eYmlge0s";
2  var docName = "YourQualitativeResearchDesign1"
3  function onFormSubmit(e) {
4
5  var email_address = "ivanjorin1440@gmail.com";
6  var name = e.values[1];
7  var email = e.values[2];
8  var topic = e.values[3];
9  var worldview = e.values[4];
10 var personalgoal = e.values[5];
11 var practicalgoal = e.values[6];
12 var intellectualgoal = e.values[7];
13 var existingtheory = e.values[8];
14 var previousexperience = e.values[9];
15 var researchtradition = e.values[10];
16 var researchquestions = e.values[11];
17 var methods = e.values[12];
18 var credibility = e.values[13];
19 var stepsnarrativeresearch = e.values[14];
20 var stepspenomenology = e.values[16];
21 var stepsethnography = e.values[17];
22 var stepscasestudy = e.values[18];
23 var stepsgroundedtheory = e.values[19];
24 var stepsactionresearch = e.values[21];
25
26
27
28 var copyId = DriveApp.getFileById(docTemplate)
29 .makeCopy(docName+' for '+name)
30 .getId();
31
32 var copyDoc = DocumentApp.openById(copyId);
33 var copyBody = copyDoc.getActiveSection();
34
35 copyBody.replaceText('keyname', name);
36 copyBody.replaceText('keyemail', email);
37 copyBody.replaceText('keytopic', topic);
38 copyBody.replaceText('keyworldview', worldview);
39 copyBody.replaceText('keypersonalgoal', personalgoal);
40 copyBody.replaceText('keypracticalgoal', practicalgoal);
41 copyBody.replaceText('keyintellectualgoal', intellectualgoal);
42 copyBody.replaceText('keyexistingtheory', existingtheory);
43 copyBody.replaceText('keypreviousexperience', previousexperience);
44 copyBody.replaceText('keyresearchtradition', researchtradition);
45 copyBody.replaceText('keyresearchquestions', researchquestions);
46 copyBody.replaceText('keymethods', methods);
47 copyBody.replaceText('keycoding', coding);
48 copyBody.replaceText('keycredibility', credibility);
49 copyBody.replaceText('keystepstradition', stepsnarrativeresearch);
50 copyBody.replaceText('keystepspenomenology', stepspenomenology);
51 copyBody.replaceText('keystepsethnography', stepsethnography);
52 copyBody.replaceText('keystepscasestudy', stepscasestudy);
53 copyBody.replaceText('keystepsgroundedtheory', stepsgroundedtheory);
54 copyBody.replaceText('keystepsactionresearch', stepsactionresearch);
55
56
57
58 copyDoc.saveAndClose();
59
60 var pdf = DriveApp.getFileById(copyId).getAs("application/pdf")
61
62 var subject = "YourResearchdesign1";
63 var body = "Here is the research design form for " + name + "";
64 MailApp.sendEmail(email, subject, body, {htmlBody: body, attachments: pdf});
65 var pdf = DocsList.getFileById(copyId).getAs("application/pdf");
66
67 //var doc = DocsList.getFileById(copyId);
68 //var folders = doc.getParents()
69 //var newFolder=DocsList.getFolder((Hopscotch-designs));
70 //doc.addToFolder(newFolder);
71 //var docParentFolder=folders[0];
72 //doc.removeFromFolder(docParentFolder);
73 DriveApp.getFileById(copyId).setTrashed(false);
74
75 }

```

Figure 8: Script generated for the Hopscotch web-tool

### **Use of the Model and Initial Results**

The model proposed in this article has not yet been formally evaluated. We are currently in the process of obtaining Institutional Review Board (IRB) approval to conduct a proper responsive evaluation of both the conceptual model and the web-tool. However, we already have a number of evidences, mainly coming from the usage of the model and web-tool, that lead us to believe in its usability and helpfulness.

On a personal level, I have used the model in two different graduate courses in research methods at my current institution: EDRS 8000 on Applied Quantitative & Qualitative Research, and EDRS 9100 on Advanced Qualitative Research Methods. The first one is a graduate research course in which students are expected to develop functional understanding of quantitative and qualitative research as applied to the educational arena; acquire and become proficient in analytical and interpretive skills; and pursue applied research that will bear positively on school change. EDRS 9100 is also a graduate course that aims to help students improve their understanding of qualitative research practices used in education. It also aims to enhance student understanding of the theoretical and practical dimensions of conducting qualitative research. EDRS 8000 is usually delivered online, while EDRS 9100 is delivered face-to-face, blended, and fully online.

In EDRS 9100, the Hopscotch Model has been used with two different purposes. I initially employed the model to redesign the structure, contents and assignments of the whole course. Moreover, the Hopscotch has also been utilized to generate a template for students to follow in the creation of solid and complete research designs for a brief, real qualitative study that constitutes the final assignment. This course has been taught using the Hopscotch Model in spring 2015 (one face-to-face section and one blended section), summer 2015 (one fully online

section), fall 2015 (one face-to-face section) and spring 2016 (one fully online section), involving a total of 71 graduate students. Two professors (including the author) have been involved in teaching these courses.

In the case of EDRS 8000, I used the Hopscotch Model to redesign one module out of five, regarding an initial approach to qualitative research. In this case, students are asked to employ the template provided by the model (a word document version of the virtual one provided by the Hopscotch model web-tool) to generate a pilot qualitative research design. The course has been taught using the Hopscotch model in one of its modules, in spring 2015 (six fully online sections), summer 2015 (one fully online section), fall 2015 (eight fully online sections) and Spring 2016 (six fully online sections), involving 388 students. Seven professors (including the author) have been involved in teaching these 21 sections.

In addition, the model has also been adopted by a professor at the University of Valladolid (Spain) in an undergraduate course on research and innovation in elementary education (*Métodos de Investigación e Innovación Educativa*). Students taking this class are asked to collaboratively generate, as their final project, a pilot qualitative research design with the aim of promoting innovations in elementary schools. Ninety students have been directly using the web-tool of the hopscotch model (spring 2016), having generated 42 qualitative research designs.

The adoption of the proposed model in these three courses at two different higher education institutions, as well as its use by nine different professors, constitutes initial evidence of the usefulness of the Hopscotch. However, further evaluation is needed in order to identify the reasons why the model has been adopted, as well as its main strengths and drawbacks.

The model has also been used as the methodological basis for four dissertations to date (See table 2). It is worth noting that only one (Prieto-Pariente, 2016) has been directed by the author of the model. The other three are advised or have been advised by colleagues at both the University of Valladolid and Kennesaw State University. This second use of the proposed model also constitutes a proof of its robustness and usefulness for doctoral students involved in their dissertation projects.

<b>Course/Experience</b>	<b>Use given to the Model</b>	<b>Number of students/users involved</b>
EDRS 8000: Applied Quantitative & Qualitative Research	Redesign of Module regarding qualitative research methods.  Use of a Word version of the template provided by the model for students to generate the qualitative research design of a pilot project.	388 graduate students  7 professors
EDRS 9100: Advanced Qualitative Research Methods	Redesign the structure, contents and assignments of the whole course.  To generate a template to be followed by the students, in the creation of solid and complete research designs for a brief but real qualitative study.	71 graduate students 2 professors
University of Valladolid (Spain) undergraduate course.	To generate the design of pilot qualitative studies to promote innovation in elementary schools	90 students 1 professor
Hopscotch's model web-tool usage	The website has received 5458 visits through 05/31/2016  86-designs have been created using the web tool	86 users of the web-tool
Doctoral dissertations	The following dissertations have used the Hopscotch Model in their methods section:  Méndez-Romero, R.A. (2015). El concepto de excelencia docente: Una aproximación multidimensional inductivo-deductiva desde la teoría fundamentada, el mapeo de la ciencia y el	4 Doctoral students

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análisis cualitativo de contenido (Doctoral dissertation). University of Valladolid (Spain).

Prieto-Pariente, J. (2016). Competence-based instructional design in a secondary technology course: An Action research (Doctoral dissertation). University of Valladolid (Spain) (To be defended in October 2016).

Gordy, S. L. (2016). Portfolio Assessment with Student Self-Reflection in Fifth Grade (Doctoral dissertation). Kennesaw State University (USA) (To be defended in fall 2016).

Lockner-Shorter, J. (2016). The Impact of Mentoring Programs on Teacher Retention:Teacher Narratives on Mentoring and Retention (Doctoral dissertation). Kennesaw State University (USA) (To be defended in fall 2016).

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Table 2. Summary of the usage of the Hopscotch Model and Web-tool

In addition to gathering the previously described uses of the model, the website created for the practical implementation of the model has been tracked using Google Analytics. Since the launching of the website in January 2015, it has received 5458 single visits, and 86 qualitative research designs have been generated. If we add them to the 459 designs that have been generated using the word document version of the virtual form provided by the Hopscotch model web-tool, in EDRS 8000 and EDRS 9100, we realize that 545 novice researchers have used the Hopscotch model through April, 2016. This is a good indicator of the usefulness and impact the proposed model is currently having

### **Final considerations and Future Work**

In this article we have discussed both the necessity and creation of the Hopscotch Model and the web-tool to support its practical usage. The process started with the selection and analysis of nine seminal works that helped the identification of ten emergent dimensions that were converted into nine steps within the proposed model. Even though we have not conducted a formal evaluation of the model, we believe it helps to overcome the identified shortcomings in

existing models, such as the global nature of some of them, the complexity of others, and the *ad hoc* nature of those deeply related with particular research traditions. Moreover, the proposed model helps the balance between the philosophical and pragmatic teaching and learning of qualitative research methods. As a result, the model has helped us to respond to the initial goals set for its creation: a) giving answer to the complete lifecycle in the generation of qualitative research designs; b) being applicable to a wide range of research traditions; c) offering a tool for novice researchers not only to generate research designs but to also train in the philosophical underpinnings behind this particular form of research, while doing it and; d) providing an interactive tool mediated by technology to help the design process based on examples.

Future steps to enhance the proposed model are to: a) formally evaluate the model; b) refine the model and web-tool, based on the recommendations and critiques made by its users; c) translate the model into other languages; and d) extend the model by incorporating two alternative itineraries for novice researchers interested in the generation of quantitative and mixed methods research designs.

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