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Citation: Strijker, Dirk, Bosworth, Gary and Bouter, Gosse (2020) Research methods in rural studies: Qualitative, quantitative and mixed methods. *Journal of Rural Studies*, 78. pp. 262-270. ISSN 0743-0167

Published by: Elsevier

URL: <https://doi.org/10.1016/j.jrurstud.2020.06.007>  
<<https://doi.org/10.1016/j.jrurstud.2020.06.007>>

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## Research methods in rural studies: the use of mixed methods

### Abstract

*In this paper, we analyze the use of qualitative, quantitative, and mixed methods in the field of rural studies by means of a content analysis of the leading journals. We begin with a short discussion of the pros and cons of mixed methods research in rural studies. We then move on to the empirical portion. We use a classification of published articles for the years 2000, 2004, 2008, 2012, and 2016 in the leading journals in the field: Sociologia Ruralis, Rural Sociology, and Journal of Rural Studies. We found striking differences in the publication policy of the three journals regarding methods applied. Sociologia Ruralis primarily accepts articles of a qualitative nature, and this has scarcely changed over the years. Rural Sociology, on the other hand, accepts mostly quantitative articles, and this has also been quite stable over time. The Journal of Rural Studies has traditionally been oriented towards qualitative research, but, in recent years, mixed method approaches play a visible role (around 20% in 2016). JRS is also the only journal that shows a sharp increase in papers of non-Western origin, with an emphasis on quantitative methods but not on mixed methods. The overall conclusion is that the rural research context offers considerable scope for a broader and increased application of mixed methods, and this merits greater attention among rural journals.*

*Research methods, mixed methods, publication policy, rural studies*

### 1. Introduction

Traditionally, there is a strong difference between the methods applied in the natural sciences and those in the social sciences and humanities. The natural sciences tend to apply quantitative methods; the social sciences, especially psychology, human geography, and sociology, are more qualitatively oriented. However, there are notable exceptions, such as economics and important tranches of sociology, where quantitative approaches are predominant. The division between the two approaches still exists today, despite the fact that, already in the nineteenth century, scientists pleaded for the social sciences to follow a positivist ontology in using the same methods as the natural sciences (Durkheim, *Les Règles de la Méthode Sociologique*, 1895; see Lukes, 1982). Durkheim, in fact, did away with all approaches but the positivist one: “Such a science [a normative one] can only be a stunted one, for it lacks the subject matter on which to feed” (Lukes, 1982, p. 60). While important sectors within the social sciences have indeed developed in this positivist way; other fields of research have continued to rely more on qualitative methods, making them more interpretivist than positivist.

The positivist and quantitative approaches dominated large swathes of the twentieth century, characterized by the “two cultures” divide between science and the arts, famously recognized by Snow in his 1959 Rede lecture (see Snow, 1959). Despite this, the movement towards the reintegration of research was relatively slow until the end of the century, although a notable contribution in 1966 saw the concept of triangulation entering the research methods vocabulary (Webb et al., 1966). More recently, the publication of the *Handbook of Mixed Methods in Social and Behavioral Research* (Tashakkori & Teddlie, 2003), followed shortly thereafter by the launch of *The Journal of Mixed Methods Research* in 2006, sparked a significant increase in mixed methods across

the social sciences. In line with this growth, mixed methods articles have been shown to attract higher citation rates in some fields (Molina-Azorin, 2012). However, the choices faced by researchers are more complex than just mono- or multi-methods: The latter encompasses research where methods are wholly integrated as well as those where they are carried out separately in order to provide different perspectives or to enable data triangulation (Saunders et al., 2016).

This discussion on methods also exists in rural studies. Both Crang (2002) and Woods (2010) have shown that in the 1990s qualitative research became more common in rural geography, after a long dominance of quantitative methods. Crang also showed that the combination of quantitative and qualitative research could yield fruitful new perspectives on emerging research problems.

Rural studies in its modern sense is, according to Cloke and colleagues (2006, p.4), “an amalgam of social science disciplines,” at the crossroads of “the agro-food and rural and regional restructuring dynamics.” It is related to various disciplines, such as sociology, economics and geography. As economics and parts of sociology are more quantitatively oriented, and geography and other parts of sociology more qualitative, rural studies sits at the crossroads of both approaches. This could make rural studies a fertile breeding-ground for the increased use of mixed methods, prompting our investigation into whether or not this really has happened, and if so, to what extent, and where. Answers are relevant for researchers in the field, and also for the management of the leading journals.

Our paper can be placed in the discussion on methods in rural studies as developed by Crang, Woods and Akimowicz. The aim is to highlight the present-day situation in the field of rural studies by means of a content analysis of the leading journals in the field. Hence we figure out in the extent to which qualitative, quantitative or mixed method approaches have gained or lost attention in rural studies. Moreover, we test the observation by Woods (2010) that multi method articles are still largely missing in rural geography. The scope of our analysis is framed by the three journals selected. From the aims and scope set out on each of their homepages, we are essentially interested in social science research that focuses on “social, political and cultural aspects of rural development” (*Sociologia Ruralis*), “sociological and interdisciplinary research into social issues affecting rural people and places” (*Rural Sociology*), and “research that advances understanding and analysis of contemporary rural societies, economies, cultures and lifestyles” (*Rural Studies*). Our focus on the three journals implies that we do not cover all rural studies; many papers in the field are published elsewhere. This is a limitation of our work, as authors could choose other journals not only because of their topic but also because of their methods, or because of their origin. Just to mention some examples, several ‘rural’ papers are published in quantitatively oriented journals such as *Population, Space and Place*, and *Regional Studies*. These journals are most probably to a certain extent chosen because of the method applied. Others from non-Western or non-West European countries could have a preference for journals more familiar to them, such as the *International Journal of Rural Management* (India based) or *European Countryside* (Czech based).

*Aim and scope of the 3 journals in full, according to their websites:*

*Sociologia Ruralis* reflects the diversity of European social-science research on rural areas and related issues. The complexity and diversity of rural problems require multi- and interdisciplinary approaches. Over the past 40 years *Sociologia Ruralis* has been an international forum for social scientists engaged in a wide variety of disciplines focusing on social, political, and cultural aspects of rural development. *Sociologia Ruralis* covers a wide range of subjects, ranging from farming, natural resources, and food systems to rural communities, rural identities, and the restructuring of rurality.

The *Journal of Rural Studies* publishes cutting-edge research that advances understanding and analysis of contemporary rural societies, economies, cultures, and lifestyles; the definition and representation of rurality; the formulation, implementation, and contestation of rural policy; and human interactions with the rural environment. The journal is an interdisciplinary publication and welcomes articles from diverse theoretical perspectives and methodological approaches, which engage with and contribute to the rural social science literature, as broadly defined by the disciplines of rural geography, rural sociology, agricultural and rural economics, planning, and cognate subjects. The coverage of the journal is global in scope and solicits articles based on empirical research in any part of the world that is of relevance and interest to international readers. The primary audience of the journal are social science researchers, teachers, and students interested in contemporary rural issues, processes, and experiences.

A forum for cutting-edge research, *Rural Sociology* explores sociological and interdisciplinary approaches to emerging social issues and new approaches to recurring social issues affecting rural people and places. The journal is particularly interested in advancing sociological theory and welcomes the use of a wide range of social science methodologies. Manuscripts that use a sociological perspective to address the effects of local and global systems on rural people and places, rural community revitalization, rural demographic changes, rural poverty, natural resource allocations, the environment, food and agricultural systems, and related topics from all regions of the world are welcome. *Rural Sociology* also accepts papers that significantly advance the measurement of key sociological concepts or provide well-documented critical analysis of one or more theories as these measures and analyses are related to rural sociology.

Although related to rural studies, agronomy and agricultural economics, and regional economics do not belong to the core of it. For this reason, we are excluding agronomy and agricultural economics, as well as regional economics, from our research. Moreover, the application of mixed methods research in those fields has recently been discussed in a contribution to *Journal of Rural Studies* by Akimowicz et al. (2018).

From the mixed methods perspective, rural studies is an interesting field, because, traditionally and to a certain extent even today, agriculture is still an important sector in rural areas. Rural areas are physically dominated by agriculture, and agricultural sciences tend to be primarily a niche domain of the natural sciences. Following this line of reasoning, one could hypothesize that quantitative approaches might still dominate the field of rural studies. However, there is also a rich social science tradition in rural studies, which is often positioned as a special kind of sociology (see again Cloke et al., 2006, esp. Chapter 1). The leading conferences in the field are organized by the European Society

for Rural Sociology (ESRS), and the names of two of the three leading journals also support this notion (*Sociologia Ruralis* and *Rural Sociology*). This might suggest that more qualitative approaches would dominate.

Apart from quantitative and qualitative research methods, there is a third way: the use of mixed methods. The application of mixed methods is also by no means new, as explained by Bryman in the editorial to the five-volume standard work *Mixed Methods* (Bryman, 2006), and in the *Handbook of Mixed Methods* (Tashakkori & Teddlie, 2003). What is new, according to Bryman, is the recent growing interest in its potential. Mixed methods research should not be confused with mixed mode surveys, since mixed mode is about different ways of collecting data (see, for instance, De Leeuw et al., 2008). The interest in mixed methods research is the outcome of a lengthy scientific debate, sometimes referred to as “the paradigm wars” (Hammersley, 1992). The argument of the early contributors in this debate (see Bryden, 2006, p. XXXVI) against mixing quantitative and qualitative methods was that both approaches are based on completely different philosophical positions and assumptions about social research (Bryden, 2006, p. XXIX). In the domain of rural studies this point was developed by Möller Madsen & Adriansen (2004), emphasizing the challenge of combining qualitative and quantitative data in rural research, and showing the advantages of the application of mixed methods in multi-faceted research problems.

The different philosophical positions and assumptions especially play a role in relation to triangulation, where traditionally triangulation is understood as the use of a different method in order to validate the outcome of another method (see, for instance, Cronbach & Meehl [1955], as reprinted in Bryden [2006]). However, the term triangulation has gradually also taken on a different content: approaching a social phenomenon from different perspectives, eventually in different stages of the research, in order to obtain more insight into it (see, for instance, Watkins & Giola [2015]). Or, in the words of Bryden (2006, p. XXXIX): “...*triangulation is not so much a strategy for checking the validity of findings, as a means of capturing and doing justice to that [social] reality.*” This in fact is the main argument in favor of mixed methods research, and the eventual difference in terms of philosophical stance is not so decisive in that case. Creswell and Plano Clark (2011) summarize this eloquently in the titles of the sections of their Chapter 1: A different method could, for instance, be used because of *insufficient data*, for *explaining initial results*, in order to *generalize outcomes*, or to *understand a research objective*.

Mixed methods research that focuses on deepening the understanding of generalizable, often quantitative research, and focuses on creating generalizable outcomes from a qualitative approach, is quite suitable for those segments of the social sciences that strive for the production of more or less directly usable results for interventions and policies. As Bigler et al. (2019) state, the use of mixed methods is almost inevitable when taking a holistic view to tackle a research problem. This is because reality is, in general, too complex to be approached one-dimensionally. Since quite a few researchers in the field of rural studies and rural sociology typically aim to serve society through policy recommendations, one might expect a large share of mixed methods research in that field. This might be strengthened by a specific characteristic of research in rural areas, the “insufficient data” problem, as noted by Creswell and Plano Clark (2011).

However, there are still many research questions in rural studies that are focused at just one important relation. Such one-dimensional questions are, in general, best served by employing one

method, instead of mixed methods. Of the countless examples we mention just a few: Bassi et al. (2019) (qualitative: narrative research) and Greiner (2016)(quantitative: logistic regression).

## **2. Doing research in the rural**

Like the “urban,” the “rural” is a contested concept. As Woods (2005 & 2011) explains, functional approaches are flawed because those functions that were traditionally seen as “rural” increasingly transcend rural and urban space. Examples of this can be seen with the growth of “urban agriculture” (Curry et al., 2015) and digitally enabled rural enterprises (Townsend et al., 2017). Moreover, rural and urban economies are increasingly interdependent (Lichter & Brown, 2011), with the resulting network interactions further blurring any distinctions between rural and urban society. Furthermore, other approaches, such as the politico-economic approach and the rural as private social representations, have drawbacks. Woods (2005) concludes that this is no reason to do away with “rural,” since it continues to be a “category of thought” (e.g. Mormont, 1990) for policy-makers, academics, and individuals.

Without defining rural areas, it is clear that they tend to have fewer people, fewer firms, and fewer interactions than average. The consequences for rural researchers are that there will be fewer observations and respondents within any given territorial space, and, on lower levels of scale, there will be more empty cells in public statistics. Despite this, one could argue that the rural setting offers a better opportunity to capture a whole population of a village or local economy. This can open up greater opportunities for a more holistic understanding of rural social and economic dynamics, without the need to disentangle so many complex and “fuzzy” layers of contradictory cause-and-effect within a defined space.

So, undertaking social science research in sparsely populated areas has many specific challenges. One of the more complicated aspects is overcoming the physical distances involved in reaching the place of research (lack of public transport, bad infrastructure, and even lack of accommodation, higher costs). This may make it difficult to find and reach enough relevant places or respondents, especially when it comes to quantitative research. Secondary datasets are often less suited to rural situations due to the lower number of cases and the heterogeneity of places if a number of rural areas are amalgamated. There are very valuable datasets that are appropriate for analyzing rural demographics, agriculture, and rural development at national and European levels (e.g., Eurostat), but these tend not to be available at a detailed level. The result is that they only provide a “bigger picture” perspective, from which researchers need to dig deeper in their own, new research. The more recent trend of applying micro-data (combined data on the individual or household level) is also challenging in rural areas, since the requirements concerning anonymity can easily become a hindrance for the researcher (for an initial discussion of this topic, see Boulos, Cai, Padgett, & Rushton (2006)).

The rural can also provide a conceptual challenge for researchers. Such challenges arise in relation to the delineation or classification of rural areas, which varies between countries, and, more fundamentally, when thinking about meanings of rurality for different groups of people (Bosworth & Somerville, 2013). As well as reflecting on one’s own positionality, as any good researcher must, the rural researcher will encounter research subjects with diverse representations and perceptions of “rural” as well (Haartsen, Groote, & Huigen, 2003).

The research questions for rural areas often differ from those for urban areas. Land use (conflicts), the development of agriculture, food issues, endogenous and neo endogenous development, and the role of citizens' initiatives are some of the prioritized themes. Power relationships in rural areas can also be quite different from the general picture: Historical developments, long memories, and relative policy independence should be taken into account. Just as with statistical data, these characteristics of rural communities can also lead to ethical issues associated with small numbers and confidentiality, when qualitative methods are used.

There are a number of approaches that can be specifically attractive in rural circumstances: Remote sensing, diary approaches, and application of visual means can be helpful in situations with fewer cases and longer distances. Since it is often challenging to find enough cases, it can be attractive to choose a mixed or multi-method approach, since this helps create a more complete picture of a rural phenomenon. Combining a number of observations about mixed methods could be described as tackling a research question from any relevant angle, and making use, where appropriate, of previous research and/or more than one type of investigative perspective. As stated before, that these methods are basically rooted in different philosophies of science is not so disturbing anymore, since each of them highlights aspects of the phenomenon, adding to the general picture of it, without aggregating them or counting them together in some way.

There are many examples to be mentioned where a mixed methods approach has proved to show more insight in a real world problem. However, those examples are not always at the level of single papers. Many large projects, such as Horizon 2020 projects, but also many PhD-projects, are aimed at finding solutions for societal challenges, and, in order to do so, the use of mixed methods is more than commonplace. However, the scientific output of those projects in terms of papers for journals often cuts along the classical methodological dividing lines between qualitative and quantitative approaches. An example is of a PhD-project using mixed methods is the thesis of Bijker (2013). In Chapter 3 a quantitative analysis is presented of the motives to move to a rural area, and the characteristics of the moving persons. A (qualitative) diary approach in Chapter 5 unveils that the search trajectory of the movers is far from straightforward, especially for long distance movers. This insight could not have been gained through quantitative research as there would have never been enough data to do so. However, there are also single papers in which the application of mixed methods has yielded more insight in a certain phenomenon, such as the paper of Mugi-Ngenga and colleagues (2016). The data is collected through a survey, a literature review, and focus-group discussions. The survey is the methodological heart of the analysis, using an advanced statistical model. However, the literature review and focus-group discussions do play an important role in the analysis, since these data help to interpret the statistical output.

Hence, the research question of this article is: What is the share of the different approaches (quantitative, qualitative and especially mixed methods) allocated in the leading journals in the field of rural studies, what are the differences between the journals, what have been the changes in the respective shares in recent years, has there been any progress in the use of mixed methods, and are we able to explain these eventual differences and changes?

### **3. Data and method**

As we stated earlier, rural studies research is situated at the crossroads of rural sociology, agricultural sciences, and regional economics, and not just in terms of sociology and agricultural, or regional

sciences alone. In this paper, we therefore focus on the journals at the crossroads: *Sociologia Ruralis* (*SRuralis*), *Rural Sociology* (*RurSoc*), and *Journal of Rural Studies* (*JRS*). For this research we have classified all articles for the years 2000, 2004, 2008, 2012, and 2016 published in these three journals. An article is classified as *Quantitative* when a mathematical model or advanced statistics are at the methodological heart of it. It is classified as *Qualitative* when primarily qualitative methods are used. If the analysis is fully based on less advanced descriptive statistics, without the use of any other method, it is also classified as *Quantitative*. However, an article which uses a qualitative method supported by simple descriptive statistics, is classified as *Qualitative*. If more than one method is used, for instance, qualitative research together with analytical statistics or mathematical modeling, we classify it as *mixed methods*. If an article does not meet any of these standards, which is, for instance, the case for some editorials, we classify it as *Other*.

In order to shed more light on the classification system, we will illustrate our methodology and line of thinking by using three examples that otherwise might have resulted in some debate about the classification. These are the articles by Wiest (2016), Mugi-Ngenga and colleagues (2016), and Abebe and colleagues (2016). Other than being good examples, there is no other reason for choosing three articles from the same volume. To start with, we will reflect on the article by Wiest (2016). After discussing the contextual framework of the article, Chapter 4 discusses the methodology used. In short, the results are based on a survey and in-depth interviews. Results of the survey are in percentages and interpreted without making use of further mathematical models or statistical analyses, and the explanatory power of these figures is limited, whereas the methodological heart of this article, the in-depth interviews, takes center stage. Therefore, we deem the quantitative part of this article too limited to be categorized as a mixed methods article. Given these points, we categorize Wiest (2016) as *qualitative*. Subsequently, the aforementioned article of Mugi-Ngenga and colleagues (2016) makes use of a triangulation approach. They use a sophisticated statistical model filled with survey data, but the information from focus-groups gives meaning to the statistical output. Therefore, we categorize Mugi-Ngenga and colleagues (2016) as *mixed methods*. To end with, we will look at the approach used by Abebe and colleagues (2016). The method chapter, as well as the methodological framework and the results, make it clear that the methodological heart of this article is the mathematical modeling and the statistical analyses. Yet, in the results, Abebe and colleagues (2016) base only a very small part of their findings on their own observations in the field, and no qualitative method (i.e., an ethnography) has been used. The contribution of this observation, without a methodology behind it, is only limited, and can be considered as general knowledge of the study site. Hence, we categorize Abebe and colleagues (2016) as *quantitative*.

An initial observation from our empirical work was that, over the course of time, articles have become more uniformly structured: In the oldest articles, a clear methodological section is often lacking (methodology hidden in other sections or hardly discussed at all), which is very different from the younger articles.

Table 1 shows the basic statistics of this exercise, which includes, in total, 598 published articles. It shows that the publication policy of *JRS* has changed considerably in recent years; the journal now accepts many more articles per year.

Table 1 Number of articles included, per year and per journal



	<i>SRuralis</i>	<i>RurSoc</i>	<i>JRS</i>	Total
2000	32	30	35	97
2004	23	23	33	79
2008	23	25	37	85
2012	24	22	72	118
2016	29	22	168	219
Total	131	122	345	598

#### 4. Results

In Figure 1-3, we have summarized the development of the share of different types of articles in the subsequent years. From Figure 1, it is clear that *RurSoc* accepts many more quantitative articles than the other two journals, up to about 50% more. The percentage for *JRS* was low (less than 10%) but increased to 20% in 2016. *SRuralis* did not contain quantitative articles in the first few years, but, in more recent years, this has increased to almost 10%. Figure 2 shows that the share of qualitative articles has dropped in all three journals. The difference in level between the three journals is still striking: around 90% in *SRuralis*, 60% in *JRS*, and 40% in *RurSoc*. Figure 3 shows that in *SRuralis* and in *RurSoc*, the share of mixed methods articles is low (in numbers: a maximum of 3 articles per year, often less) and not increasing, and, in the case of *RurSoc*, actually decreasing. *JRS* shows a quite different picture: a gradual increase in recent years, from around 5% to almost 20%. In terms of numbers, the increase is even more pronounced, since the number of articles published has more than doubled. In 2000, the number of mixed methods articles in *JRS* was just 2; in 2016, it was 32. To complete the picture, the number of “Other” articles is low in all of three journals, never more than 2 per year.

Insert Figures 1, 2 and 3.

There are a number of observations that we can draw from the data as presented above. The first is that, in the field of rural sciences, there is no common line to be seen in terms of the preferred method, since the three journals are quite different in the shares of methods they accept. It is also obvious that the two “sociology” journals do not follow one and the same tradition, as far as the type of method they prefer is concerned. *RurSoc* is US based, is the journal of the Rural Sociological Society (RSS), was founded in 1937, and, in its publication policy, fits into the strong quantitative American sociological tradition. *SRuralis* is the official journal of the European Society for Rural Sociology (ESRS), founded in Wageningen in 1957, with a strong qualitative tradition, and with a focus on a case-study approach. According to the journal itself, *JRS* does not limit itself to the field of sociology: “The journal is an interdisciplinary publication and welcomes articles from diverse theoretical perspectives and methodological approaches” (*JRS* website, retrieved May 7, 2018). This may be the main explanation for the rapid increase in the number of mixed methods articles in that journal, compared to the other two. With the increasing acceptance of mixed methods as a recognized methodology, and with their focus on adding to solutions for rural societal problems (see

the websites of *ESRS* and *RSS*), one could expect an increase in this type of article in the future there too, just as *JRS* has shown in recent years.

The fact that the three journals show a different attitude towards types of methods could be grounded in a historical background, but that is not the only driver. Researchers try to find a journal for their article that has been shown to accept comparable articles. *Elsevier's Journal Finder* and *Springer's Journal Suggester* are based on that same principle. This potentially reinforces the characteristics of the journals and does not make it easier for their editors or editorial boards to evolve a different character, focus, or preference.

O'Cathain, Nicholl, and Murphy (2009) have analyzed the facilitators and limitations for mixed methods research, in their case, in the field of health research. They indeed find limitations in the attitude of editors of journals (see above). One could add that the perception of the author(s) about the attitude of the editor, or reviewers, could already be enough to choose for or against a certain journal. O'Cathain, Nicholl, and Murphy also found the chances of getting mixed methods research published restricted by the lack of journal templates for mixed methods research and the limits on the length of articles: *Peer-reviewed journals, with their perceived orientation towards either qualitative or quantitative research, and their limitations on article length, were not seen as offering much opportunity for publishing mixed methods articles.* The foregoing arguments against publication of mixed methods research probably obscure the actual use of mixed methods in academic research projects.

## **Geography**

Our data allow us to say a bit more about the geographies of the methods applied. Therefore, we counted the country of residence of the first authors of the articles. Figure 4 tells us that over the entire period, *JRS* was dominated by British authors, with the USA and Australia in places 2 and 3, thus also adding to the British hegemony. After all, *JRS* is based in the UK and is characterized by British editors. However, Figure 5 shows a marked increase in papers authored by East and South-East Asian (largely Chinese) scholars as well as growth in North American rural research.

Insert Figures 4 and 5 here

For *RurSoc* the picture is completely different (graph not shown here). From 2000 to 2016, 87% of the articles in *RurSoc* came from USA first authors and 3% from Canada (place 2), with no significant change over time. On the other hand, *SRuralis* is more European oriented (Figure 6). In addition to the UK (34%), the Netherlands and Italy also supply quite a number of articles, and outside Europe the USA has a good share (10%).

Insert Figure 6 here

In Figure 7, we have aggregated the data over the years (2000-2016) and the countries into world regions, for the three journals together (598 articles). This shows that Europe is responsible for almost half of all published papers. It also demonstrates (again, e.g., Canagarajah [2002]) the

dominance of the Western world in rural academic research: Only 8% originates from regions other than North America, Europe, or Oceania.<sup>1</sup>

Insert Figure 7 here

Figure 8 gives the same information, but now per year. Apart from the increase of Europe in recent years (primarily caused by the increase in the number of published articles in *JRS*, and *JRS* is traditionally dominated by Europe), we see an interesting increase for China and Southeast Asia in 2016.

Insert Figure 8 here

The abovementioned Western dominance also can be observed within the world region Europe. In Figure 9, we have divided Europe into 4 regions: North, East, South, and West. Three-quarters of the published articles come from West, another 14% from North, with South and East adding only 11% combined.

Insert Figure 9 here

### **Geography and method**

In Figures 10-12, we have summarized the four dimensions we are looking at: journal, region, year, and method. From these graphs a couple of observations can be made. Figure 10 shows the distribution for *JRS*. In the initial years, the few quantitative articles came primarily from Europe, not from the more quantitatively oriented USA & Canada. It seems that *JRS* was more an outlet for qualitative papers from the USA & Canada, fully in line with the argument that researchers look for a journal that has a track record in their method. In those years, the few quantitative papers in *JRS* came almost exclusively from European first authors. In the last year, 2016, the shares of the methods in *JRS* are quite different. The share (and, even more so, the number: see Table 1) of quantitative papers has increased from all regions, especially from Asia (China), and least from the traditional suppliers Europe, and USA & Canada. The sources of the increased share of mixed methods papers are Europe, USA & Canada, and Oceania, while Asia not so much.

Figure 11 shows the development in *Rural Sociology*. The large, and more or less stable share of quantitative papers in that journal fully originates from its own catchment area: USA & Canada. The small number of papers from other origins (especially Europe) are exclusively qualitative in nature. This contradicts the abovementioned argument that researchers keep an eye on the methodological focus of a journal.

Figure 12 provides the results for *Sociologia Ruralis*. Europe almost exclusively publishes qualitative papers in the journal. The small numbers of quantitative and mixed method papers in *SRuralis* came and still come from USA & Canada, again contradicting the abovementioned argument about the methodological focus.

As stated before, we admit that the frame of selecting just the three main (Western) journals could limit the full picture. Journals in upcoming regions in the world (Africa, Asia, Central Europe) could show a somewhat different perspective, with for instance more attention for quantitative methods in

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<sup>1</sup> For the delineation of the regions: Annex 1

China, and more mixed methods in central Europe. However, as our selected journals are leading in terms of rankings, we think that our picture is reliable.

Insert Figures 10-12 here

## 5. Conclusion

Mixed methods research is an accepted methodological approach nowadays, very different from the past. This is the result of a gradual change in the content of the concept, from validation of the results of a certain method to approaching a social phenomenon from different perspectives, using different methods. We have shown that the use of mixed methods in rural studies is also more common now than in the recent past. However, in terms of the number of mixed methods articles published by the three journals, most of the increase comes from *JRS*. This may be caused by the fact that taking interdisciplinary articles from different methodological strands is the aim of this journal. The two other journals are traditionally more connected to a methodological focus: *RurSoc* to the more quantitative American tradition, *SRur* to the European qualitative tradition. Nevertheless, with the broader acceptance of a mixed methods approach, one can expect that these other journals will also receive and accept more papers of that methodological nature, although the splitting up of the output of larger projects into papers with a more traditional methodology might counteract this process.

The idea that researchers deliberately choose a journal based on its methodological focus is only partly confirmed in our data. In the initial years of our analysis, papers from non-European first authors were mostly qualitative in nature, in line with the methodological emphasis of *JRS* at that time. Moreover, the increase in quantitative papers of Asian origin in *JRS* in recent years fits into this picture. However, in the USA-based *RurSoc*, the papers from outside USA & Canada are primarily qualitative, not quantitative. The same is the case for *SRuralis*: The papers from outside Europe are more quantitatively oriented, not fitting in with the more qualitative tradition of that journal.

The data show that there is still a sense of Western dominance in the papers published in the three journals, although *JRS* shows a clear increase in papers from outside Europe and of a more quantitative nature. Authors from China play a key-role in that development.

Another observation from this exercise, as a by-product, is that, in the course of the period 2000 to 2016, the articles have become more uniformly structured. In the initial years, it was often not so easy to identify the methods that were employed in a certain article. However, in more recent years, the structure of the sections nearly always contains a section in which the methodology is discussed explicitly.

Since rural studies is focused on adding to the solution of real-world problems, one could expect that mixed methods approaches would dominate the methodological domain. Although the share of that approach is increasing, it is far from dominant. One reason could be that mixed methods research takes more work, and that the researcher must master more research techniques. Another reason could be that the journal output from large projects, directed at finding answers for societal questions, still follows the classical dividing line between qualitative and quantitative. There is perhaps an opportunity for journal editors here to reflect on whether this “cut” is due to limitations in paper length, perceptions of the preferences of different journals, or the fear that the review

process might prove more challenging if an individual paper needs to satisfy the competing demands of both qualitative and quantitative methodologists.

On the basis of our analysis we could expect that the move in rural studies in the last decennia of the 20<sup>th</sup> century, away from quantitative methods, into more qualitative approaches could be partially stopped by researchers from upcoming countries as China with an obvious preference for quantitative papers. And given the greater acceptance of mixed methods and the tendency in rural studies to analyze complex (rural) world problems, in which case mixed methods have a clear advantage, one could expect that those approaches will gain position in the leading journals in the future.

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## Annex 1: Regions

### **East Asia & Southeast Asia**

China, Japan, North Korea, South Korea, Mongolia, Taiwan, Hong Kong, Macau, Brunei, Darussalam, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam, Christmas Islands, Cocos, Andaman and Nicobar Islands

### **USA & CAN**

United States of America, Canada

### **Oceania**

Australia, Fiji, Kiribati, Marshall Islands, Micronesia, Nauru, New Zealand, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu

### **Europe**

Denmark, Finland, Iceland, Norway, Sweden, Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Ukraine, Cyprus, Greece, Italy, Malta, Portugal, San Marino, Spain, Turkey, Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, the United Kingdom

### **North Europe**

Denmark, Finland, Iceland, Norway, Sweden

### **East Europe**

Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Croatia, Estonia, Georgia, Hungary, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Ukraine

### **South Europe**

Cyprus, Greece, Italy, Malta, Portugal, San Marino, Spain, Turkey

### **West Europe**

Andorra, Austria, Belgium, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, the United Kingdom



Figure 1. Percentage of Quantitative articles per journal per year

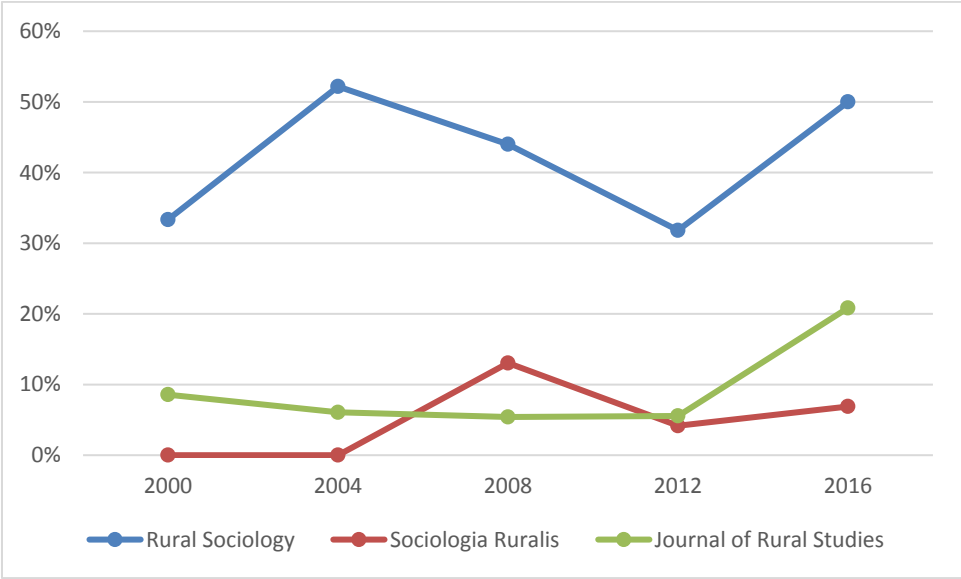


Figure 2. Percentage of Qualitative articles per journal per year

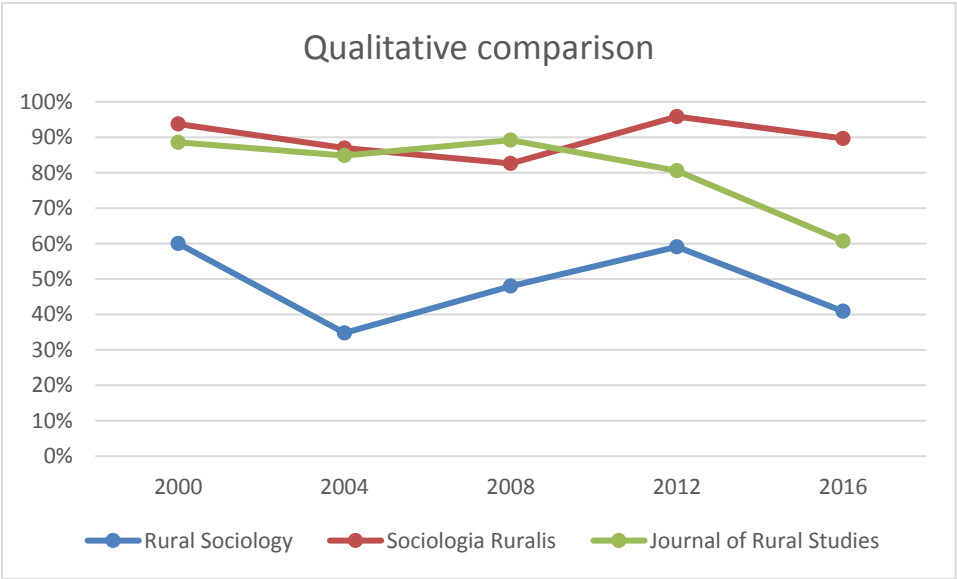


Figure 3. Percentage of Mixed Methods articles per journal per year

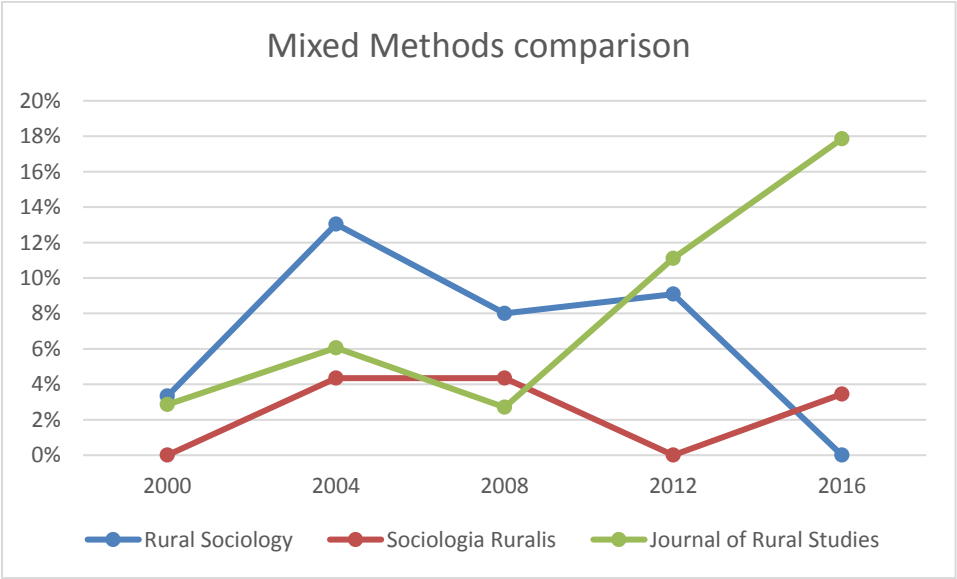


Figure 4. Share of most contributing countries in JRS (2000-2016, 345 articles)

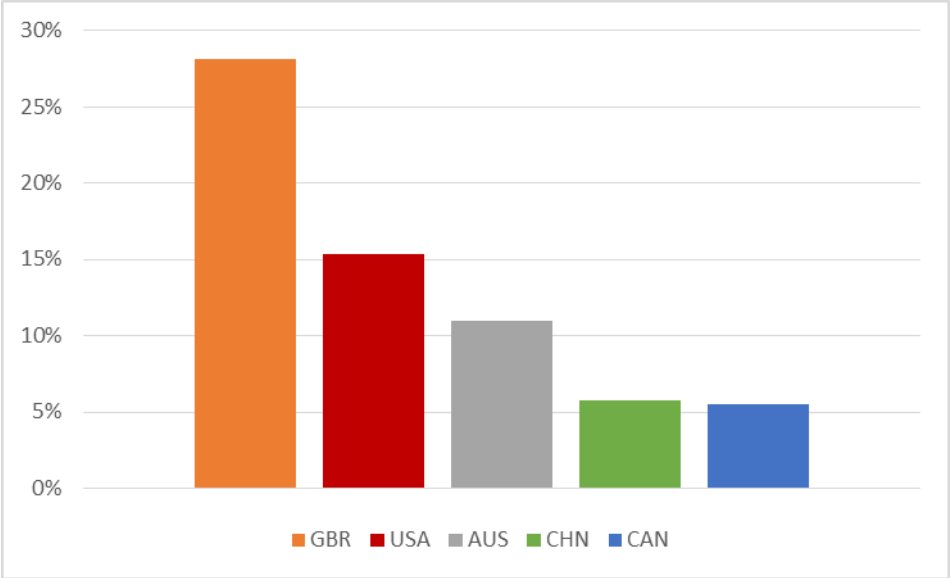


Figure 5. Absolute number of articles per region and per method in various years in *JRS* (345 articles)

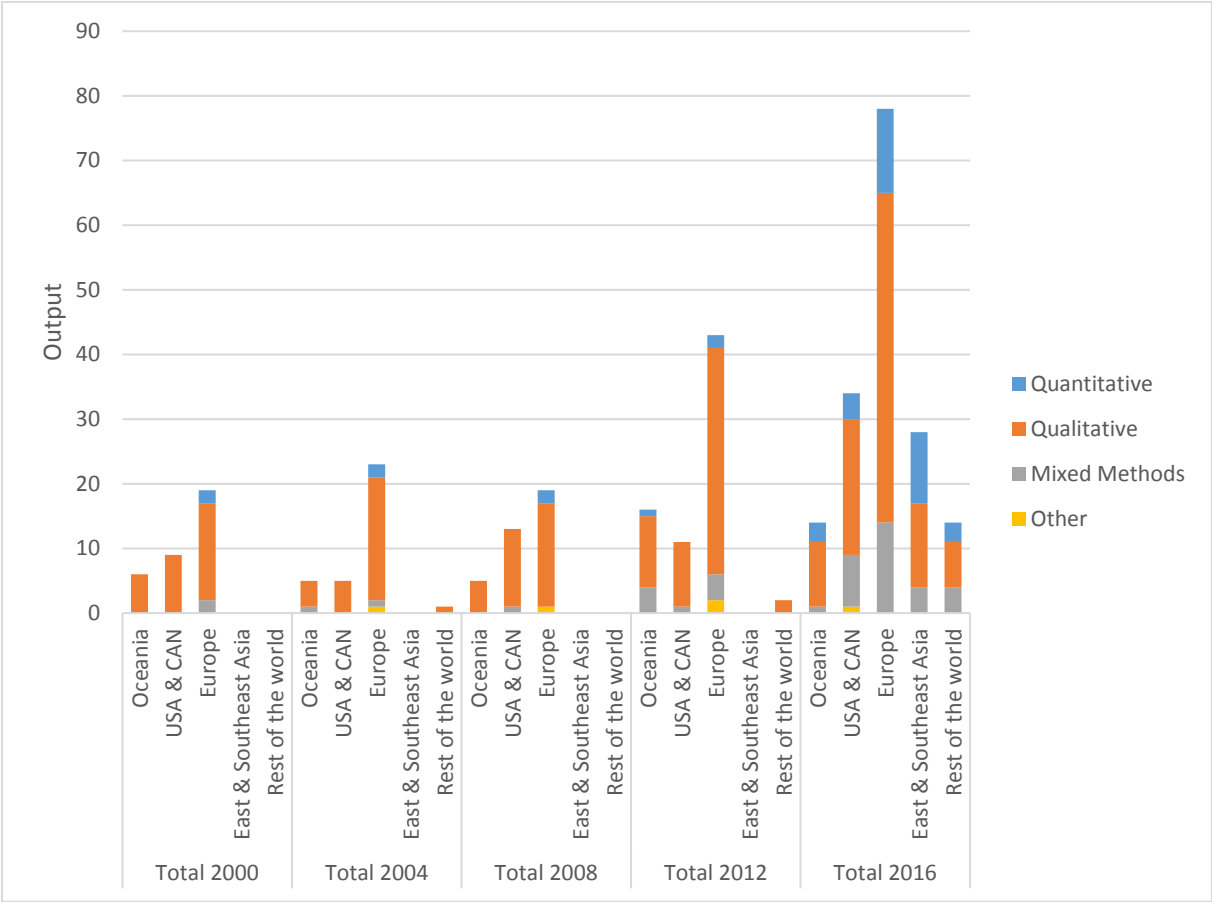


Figure 6. Share of most contributing countries in *SRuralis* (2000-2016, 131 articles)

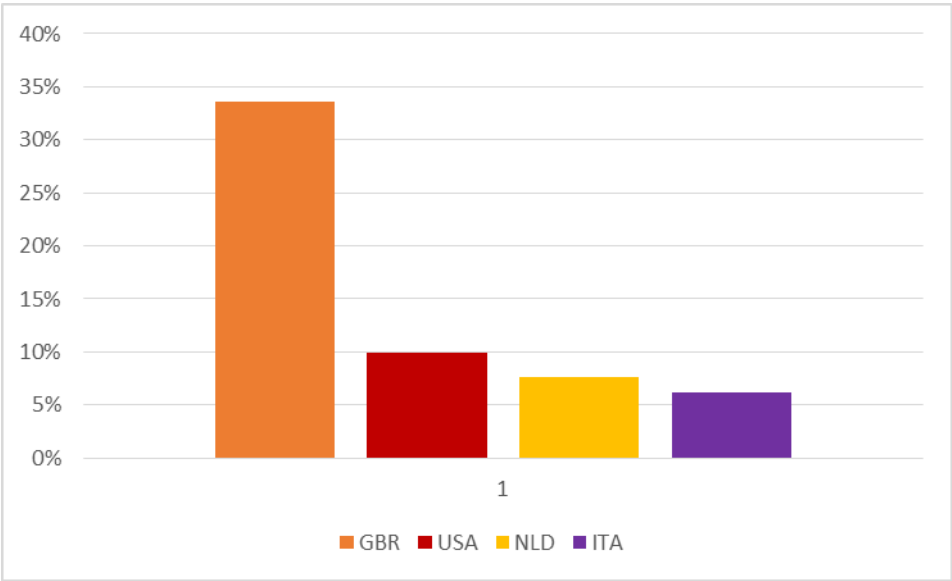


Figure 7. Region of origin of the first author (2000-2016, 598 articles)

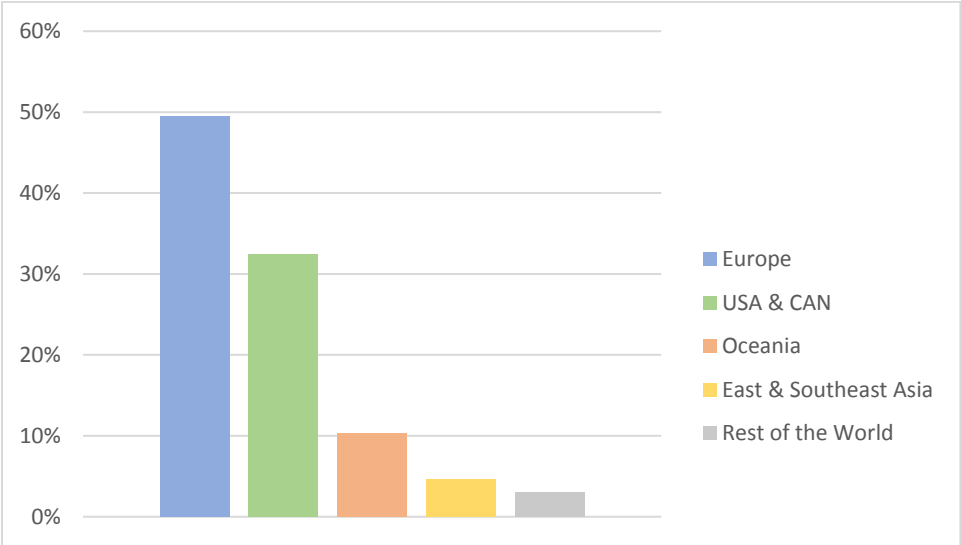


Figure 8. Region of origin of the first author per year (598 articles)

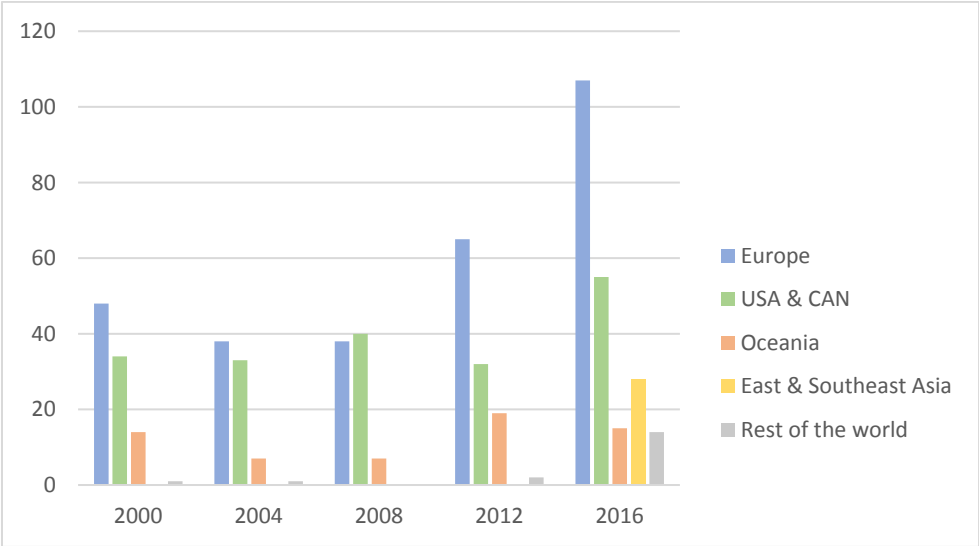


Figure 9. Articles in the three journals, per region within Europe (2000-2016, 295 articles)

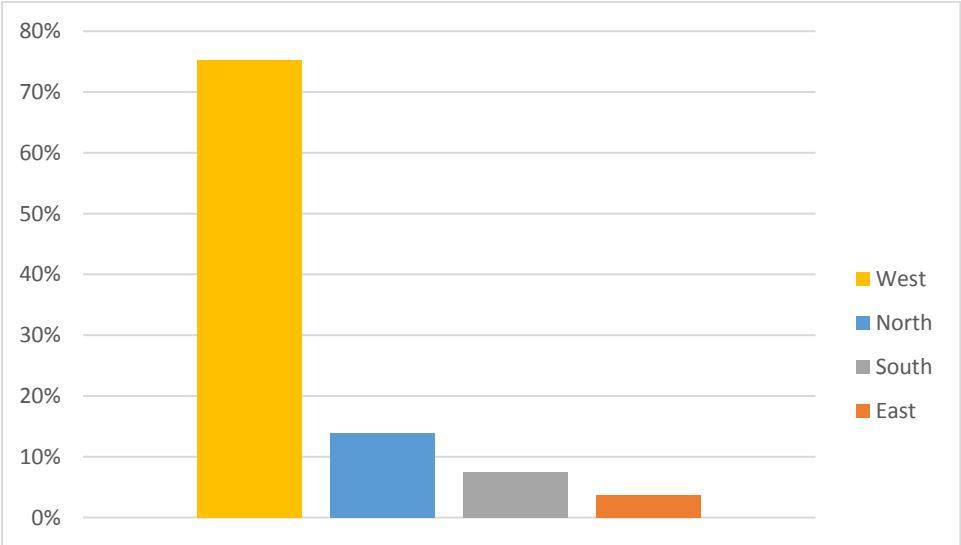


Figure 10. Share of methods in articles per region in *Journal of Rural Studies* (2000-2016, 345 articles)

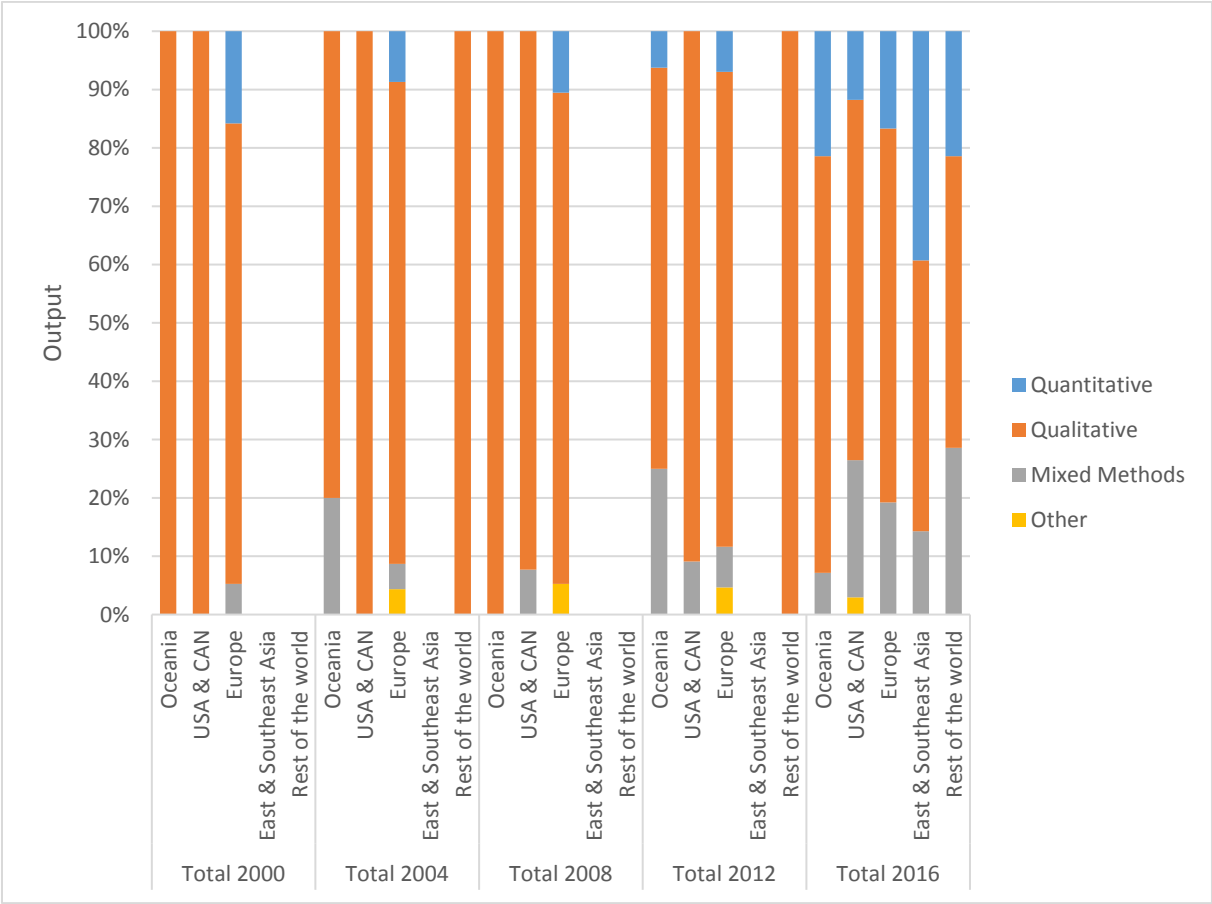


Figure 11. Share of methods in articles per region in *Rural Sociology* (2000-2016, 122 articles)

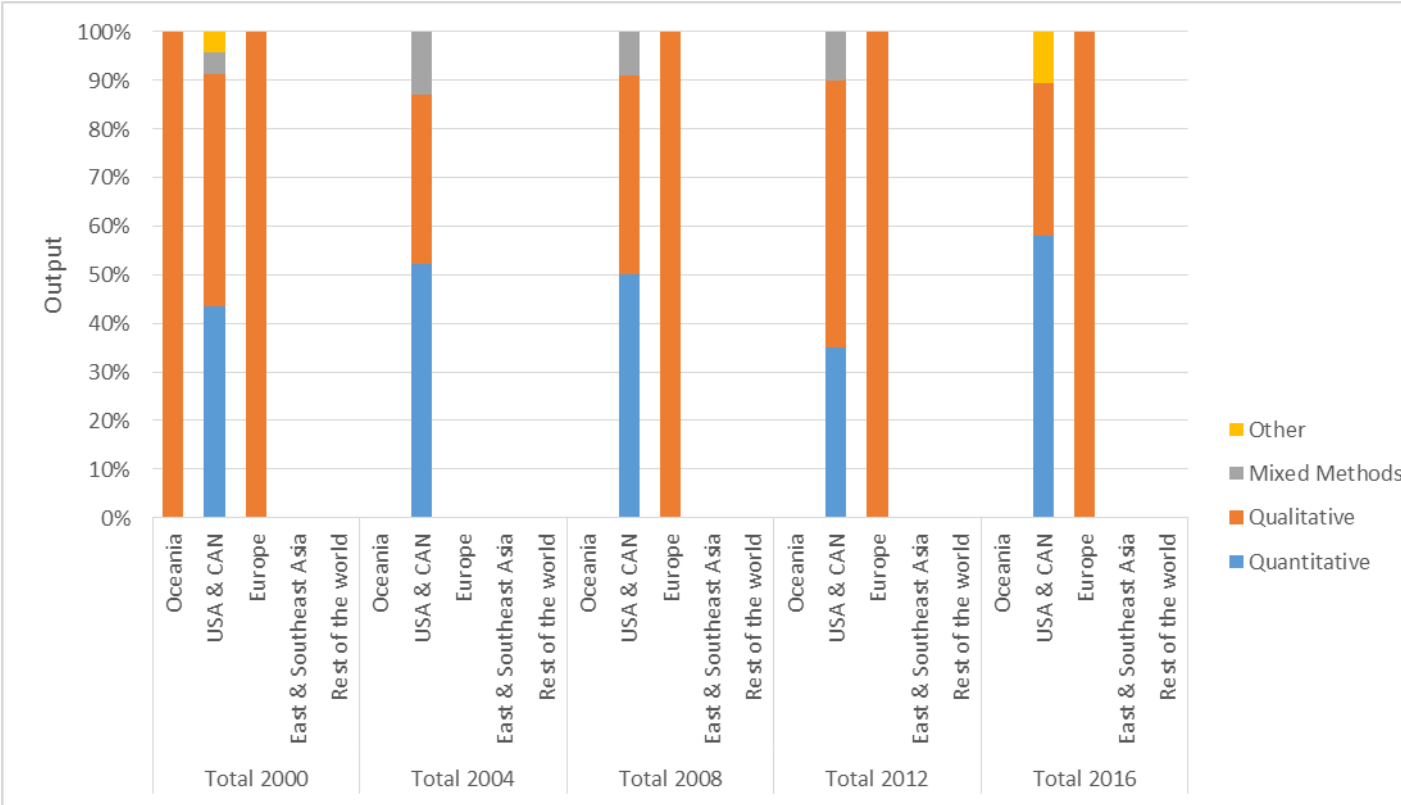


Figure 12. Share of methods in articles per region in *Sociologia Ruralis* (2000-2016, 131 articles)

