REFLECTIONS ON COMMUNITY OR, 25 YEARS ON

Zbigniew H. Przasnyski, College of Business Administration, Loyola Marymount University, One LMU Drive, Los Angeles, CA 90045, 310-338-2900, zprzasny@lmu.edu

ABSTRACT

Community OR (COR) has been in existence for about 25 years and many studies and interventions have been documented. This paper follows on from earlier studies that documented the nature of progress of COR. A literature review was carried out to determine the types of papers being written on COR and the results of a survey to determine the impressions of the status of COR 25 years after its inception are presented. Similarities and differences to the earlier studies are discussed and observations for the future of COR are made.

INTRODUCTION

As a result of the president of the OR Society of Great Britain attempt to "find a more significant role for OR . . . and . . . expand the range of OR's clients" [3] the 'Community OR' (COR) initiative was initiated. A number of COR projects have been carried out over the years and three substantial reviews of the status of community OR by Parry and Mingers [2], Wong and Mingers [4], and Johnson and Smilowitz [1] document the nature and progress of COR, the first two focused on the UK and the latter took a US perspective. The purpose of this study was to update these three earlier review papers to see what the status of COR was 25 years later.

LITERATURE AND METHODOLOGY

A two pronged methodology was used: a literature review followed by a survey. The literature review of the ProQuest database from 1990-2012 yielded 69 papers. The search terms used were Community operational research, Community based operational research, Neighborhood operational research, Pro Bono operational research, and also duplicates of these where "operational research" was replaced in turn by "operations research," "OR" and "O.R." The time period 1990-2012 was chosen to dovetail with the earlier review studies, the first of which was in 1991.

The distribution of publications in Figure 1 shows steady output of approximately 10 publications in each 5 year period with a peak of over 25 publications during the 2006-10 period and also 10 publications in the most recent two year period.

Figure 1: Number of COR papers 1990-2013
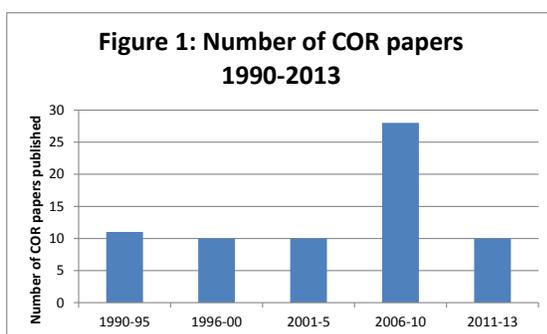
Table 1: Types of publication

Type of publication	Count	%
book review	4	6%
case study	18	26%
dissertation	5	7%
editorial	2	3%
overview	3	4%
review	4	6%
theoretical	33	48%
Total	69	100%

The types of publications are predominantly theoretical (48%) and case studies (26%) with the remainder being combinations of reviews (12%) dissertations (7%) and editorials and overviews of COR (7%) as shown in Table 1.

A survey was developed to focus on two main areas: (1) impressions of the status of COR 25 years after its inception and (2) the characteristics and nature of a "typical" COR project. The survey design follows on from and updates the work from two earlier papers in 1991 and 1994. Taking these papers chronologically, the Parry and Mingers paper [2] explored the historical context of COR and provided some examples and discussed practical issues and problems. Many of these issues formed the basis of the survey which is the focus of this paper. The Wong and Mingers study [4] contacted, by means of personal interviews and a survey, 20 people at the UK Community OR Unit who they claim were responsible for "at least two-thirds of COR projects". Another survey closely follows and then extends the questionnaire design by Wong and Mingers [4] so that comparisons over time can be made and this will be the focus of a future paper.

The survey was sent to the COR special interest group of the OR Society of GB, who it was felt would be most in touch with COR. For confidentiality reasons the emails were sent out on the author's behalf by the Membership Administrator of the OR Society. 252 members were on the list and 42 usable responses were obtained, resulting in just under a 17% response rate. The survey was designed with many open ended questions to elicit as much insight as possible. Due to the wide spectrum of opinions a sampling of the responses is included in the appendices.

RESULTS AND REFLECTIONS

Impressions of the status of COR 25 years after its inception
The survey was concerned with the opinions on community OR in general and the perception of COR in 2013, (when the survey was carried out). With regard to the general status of COR, no respondents thought that COR was either outdated or irrelevant. 14/34=41% of respondents felt that COR is "in its infancy", while 7/34=21% felt that COR was "established and accepted" as shown in Table 2. The remaining respondents provided variations on these two themes with the added dimension of "struggling" and a sample is included in Appendix 1.

Table 2: Perceptions regarding the status of COR

COR is:	Response	%
in its infancy	14	41%
established and accepted	7	21%
outdated	0	0%
irrelevant	0	0%
not sure	2	6%

Difference between Community OR and traditional OR
17/27=63% of respondents felt that community OR is different to traditional OR, while the remainder (10/27=37%) felt it was not different. Numerous reasons were cited for the differences, common themes being that COR's scope and spectrum is broader, it is less structured than traditional OR and a sample is included in Appendix 2. Nevertheless, about a third of respondents (10/27=37%) felt that COR was not that different to traditional OR: "According to Churchman: OR is about 'securing of improvement in

social systems by means of scientific method'. I cannot see the difference between OR and COR, maybe the specific interest on improving collective performance, but not sure", and a number of respondents focused on the similarity on tools and techniques: "Although the purpose may be different the tools of the trade used are the same" and "Any OR technique can be used in community OR problems but it is likely that soft OR techniques will be more useful than heavy number crunching methods like LP as the data is unlikely to be available."

Difference between Community OR and general sort of community help
21/30=70% of respondents felt that community OR is different to a more general sort of community help. 4/30=13% of respondents disagreed with this statement, while 5/30=17% were not sure. The reasons for community OR being different to a more general sort of community help largely focused on the scientific and modelling mindset of COR and a sample is included in Appendix 3. A few reasons were provided to support the proposal that community OR is not different to a more general sort of community help: "It has the same general purpose, i.e., attract a number of people that share some common interests and ideas and thus support all these three (people, ideas, interests)" and "OR has a lot to offer in supporting a range of activities, but it needn't be seen as a separate activity".

Difference between Community OR and other consulting services
18/30=60% of respondents felt that community OR differs from other consulting services; 4/30=13% disagreed while a sizeable minority 8/30=27% were not sure. The reasons for community OR being different from other consulting services focused on the paid nature of consulting services ("Consulting nearly always has a paying client to satisfy in terms set by that client. In COR, we are trying to get the best result to address an issue, whether or not this fits the preconceived agenda of a given organization") and the special support and empowerment provided to the community ("In seeking to be participative and even collaborative it challenges the status quo for many in powerful positions" and "it has a moral practical content that for some means it never could be a consulting service").

Although, one respondent stated: "The goal is to investigate questions whose answers are not obvious at the start of the project, to do so with scholarly rigor, and to aspire to publish some/most results in peer-reviewed academic journals". A few reasons were provided to support the proposal that community OR is not different from other consulting services: "there is no difference since both aim to solve problems" and "The professionalism, tools and methods, and appreciation for the system under study required remain the same within community OR and other consulting services. Community OR may involve a broad spectrum of stakeholders, but this can also be the case in consulting projects" and finally one respondent noted that "Methods are the same although context is different and community services don't have a profit objective of course. Wide range of types of client in both community OR and non-community OR."

Future of community OR
In response to the broad open-ended question "what is the future of community OR?" the respondents appeared to be overwhelmingly hopeful and positive. A sample of their responses are presented in Appendix 4 for completeness of insight. A number mentioned the importance of COR in developing countries and the challenges ahead vis a vis organizational and institutional boundaries and the importance and need for COR now more than ever. Some predicted an evolution or morphing of COR to new disciplines, especially with the empowerment of new technologies but nevertheless the underlying OR philosophy would continue. The only responses that could be categorized as less than hopeful alluded to funding problems and "continue to struggle to become as mainstream as it should be" due to the fact that COR "challenges too many power bases and assumptions".

21/22=95% of respondents indicated that they would be involved in COR projects in the future and only 1/22=5% said they would not.

Reasons for future involvement in COR ranged from idealistic ("you are improving people's lives at the end of the day"; "I think we have a lot to contribute to the world! This is an area where the UK leads the world, and we should support the development of COR in other countries, especially developing ones"; "Because it has been the social space upon which my whole academic career developed. Besides, there is a growing concern to enhance the living conditions and the social skills of the most disadvantaged sectors of society") to enthusiastic ("I am very interested and eager to take part" and "I think COR is worthwhile and there can be interesting challenges) to pragmatic ("Everything I do in the UK and overseas, especially Africa, overlaps with the COR agenda"; "Community/social sector work is my background, and I would like to bring my OR tools and skills to play in that field").

DISCUSSION

Consistent with the earlier studies, it was found that the pool of practitioners who had participated in a community OR project is small and difficult to find. Just as Wong and Mingers (1994) focused on one prominent group, the Community OR Unit, the Community OR special interest group of the OR Society was chosen for this study. The decision was made that it was more important to go to a pool of individuals who had actual and specific knowledge and/or experience with COR rather than the general OR populace who would not have specific insights into such a small niche area. The downside was that this pool was small. But nevertheless its size was very comparable to the earlier study and the response rate in fact was better for this section relating to the opinions and status of COR 25 years after its inception.

It should be noted that the comprehensiveness and detail of the responses by the respondents was quite remarkable. The survey was not short with many open-ended questions yet the respondents took the time to write in some cases quite extensive and insightful responses. That is why many of the responses are quoted verbatim to capture the various nuances of the respondents. For the survey section dealing with their experience in COR (the focus of a future paper) the respondents were clearly invested in their work and projects (e.g., in their descriptions of the projects and in a few cases actually providing specific references to the project, thereby in effect waiving their anonymity).

The section of the survey regarding the overall perceptions of COR did not exist in the Wong and Mingers study other than a brief mention on contrasts between community OR and traditional OR. The issues listed broadly overlap but this survey presents further insights by looking at similarities (as well as contrasts) and provides further insights by looking at community OR versus a general sort of community help and other consulting services. The results tend to confirm the unique role of COR.

It is noteworthy that only 18 case study papers were published during the 1990-2013 period. Quite possibly there may have been more COR projects that were carried out than were published, but even so COR could not be classified as a particularly active or research area. Even though many respondents extolled the virtues and need for COR in answer to various questions it seems that this is not reflected in research output, at least as measured by publications in peer reviewed journals. Indeed, it is telling that during the period covered there were almost double the number of theoretical papers on COR as actual case studies. Sadly it appears that it is easier to ponder and talk rather than do.

CONCLUSIONS

The academic literature on COR is not extensive and weighted approximately 2:1 towards theoretical writing, with only 18 case study papers published during the 1990-2013 period.

In spite of numerous successes over the years COR cannot be said to have entered the mainstream of OR. Community OR practitioners themselves view COR as different to traditional OR and consulting and in turn COR is different to a more general type of community help. Nevertheless the COR practitioners, at least as evidenced by the sample in this study appear positive about the future and say that they would continue their involvement.

As a final thought, the Operational Research society on its website is "offering third sector organizations the opportunity for free consultancy to help reduce costs and improve utilization of limited resources" and a third sector OR special interest group has been set up with numerous success stories posted on their blog (http://probonoor.blogspot.co.uk/). Perhaps this is the future.

APPENDIX 1: PERCEPTIONS REGARDING THE STATUS OF COR

- Established and accepted (by a specific community of researchers). It requires to increase its presence in other forums.
- Established and accepted within a very tiny ingrown community.
- Established and accepted by general OR community, but in danger of focusing on academic rather than practical development.
- Largely dormant due to key people being too busy on other things. However, this is about to change because we have new activists coming through!
- Difficult to answer as it depends on perception. The ORS special interest group on this subject in the UK is not very active at present, but on the other hand we have a thriving OR in the third sector special interest group and a large number of people willing to volunteer for pro bono projects in charities etc.

APPENDIX 2: WAYS IN WHICH COMMUNITY OR IS DIFFERENT TO TRADITIONAL OR

- Community contexts are often characterized by complexity and conflict, so 90% of the task is usually problem structuring. Also, there is rarely a straight-forward client, as you set out to deal with an issue rather than serve the interests of one party. In contrast, traditional OR commonly serves one client and much of the work is mathematical.
- It's scope and spectrum is broader.
- Focused on leveraging evidence (primarily from social science) to develop models whose innovation/importance is as much for demonstrated impacts on individuals and communities as for methods innovations."
- COR is relevant to the majority of people in their uniquely local situations, where trad OR has little to offer. Trad OR helps the wealthy and rich.
- Because its main focus is people and communities.
- COR strives to be more inclusive and participatory in its stakeholder groups involvement; it is focused on community change efforts and it feels comfortable with the use of a pluralistic design and inclusion of methods and methodologies.

APPENDIX 3: DIFFERENCE BETWEEN COR AND GENERAL COMMUNITY HELP

- OR is defined by the use of modelling. Community development more generally doesn't use modelling that often.
- Community help is a very broad term that may involve community OR but is not limited to it. Community OR, in my view, focuses on the application of OR methods; whereas community help may be a broader toolset.
- I interpret COR has putting modelling and analytical and action planning tools into the hands of those seeking greater autonomy in health and welfare. This can be seen as Community Development, Action Research or "skilled helping" (using Egan's term).
- It is an attempt to bring structure to an extremely unstructured and unoptimized sector.
- Encourages explicit description of modelling of problem and goals. Honors use of quantitative information in a way unusual in general help.
- Because OR is about bringing a scientific mindset - in any one set of circumstances, it may be that the OR intervention looks the same as a general intervention, but an OR intervention always has the potential to bring in analysis, data insight, modelling, systems thinking, etc., if those are suitable.
- The sorts of problems tackled are more to do with management and organization than hands on dealing with recipients of the service e.g., it would be about routes in meals on wheels rather than personnel problems of providing the meals on wheels.
- Community OR is more specific, concerned as it is with the employment of OR in 'community' problem situations rather than generally helping the community without employment of OR.
- It uses critical systems thinking as an overarching framework, which is often not part of the design process in general community help efforts.

APPENDIX 4: THE FUTURE OF COMMUNITY OR

- There is a huge role, I believe at this point of my understanding, for using COR in developing countries. Figuring out ways to involve the people of these countries as part of the design and implementation of COR and systems thinking can only be build capacity.
- The future is ingraining OR in everyone's lives. Knowing about the tools and methods of OR gives people the power to embrace them, and community OR would benefit from this.
- The world is increasingly challenging for people - climate / environment, demography, politics. The need for COR has never been greater and it is increasing as people all over the world struggle to make a living, assure the health, safety and welfare of their families in the face of even bigger threats to food, water and from violence. The world population now is 7bn, by 2050 possibly 9bn, the extra 2bn being mainly poor people competing for the scarce resources of the planet. COR can make a huge contribution.
- Persuading community groups that such help is vital for long-term survival. This is very difficult, and will require some "success" stories to begin promoting the field.
- Increasing prominence as communities are empowered to work on problems together and the opportunities for OR to help structure these. Increasing numbers of OR practitioners in the community providing support on a voluntary basis (e.g. as numbers of active retired OR practitioners increases).

REFERENCES – AVAILABLE ON REQUEST