Influencing project work: exploring the potentials of participatory research

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Abstract

Purpose – The purpose of this paper is to address the concept of participatory research (PR) in terms of its values and challenges in project work.

Design/methodology/approach – A participative research approach was used in which researchers worked collaboratively with key stakeholders involved in the development of a digital network model for expert diagnostics. The approach involved research and data gathering in six work packages: first, participation at workshops, including the presentation of a preliminary research agenda; second, presentation of a revised research agenda; third, interviews with project managers and steering committee members; fourth, feedback sessions; fifth, participation at a project conference, including additional feedback sessions; and sixth, concluding interviews with project managers.

Findings – The findings suggest that PR might strengthen project work through challenging interview questions and clear feedback. PR might empower the project manager by illuminating challenges and possibilities in the project process.

Practical implications – Project managers may use PR as one strategy to empower project work.

Originality/value – Despite the vast research on projects and project management, researchers and practitioners are still looking for ways to advance project work. This paper contributes with knowledge on how PR may advance project work.

Keywords Challenges, Benefits, Project management, Participatory research, Medical project, Project work

Paper type Research paper

Introduction

The present knowledge and experience in terms of running projects are not sufficient. Researchers throughout history have tried to find the key factors that lead to project success. There has been a heavy focus on using the right tools and techniques, especially inspired by the article by Pinto and Slevin (1988). Wateridge (1995) later suggested that in order to be successful, the project manager has to adapt the tools and techniques to the specific goal of the project. Attention also has to be paid to the role of the project manager, and Mumford *et al.* (2000) argued that managers are likely to perform better if their personal character fits their position. In line with this, research has shown that there are some particular leadership competences that are not only related to success in specific types of projects (e.g. Dulewicz and Higgs, 2005; Müller and Turner, 2010), but also to success in

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general (e.g. Müller and Turner, 2010; Wren and Dulewicz, 2005; Young and Dulewicz, 2006; Hawkins and Dulewicz, 2007). For example, Dvir *et al.* (2006) showed that there is a general importance for emotional competences in projects, and Dulewicz and Higgs (2005) identified the three leadership profiles, namely goal oriented, involving and engaging, that are appropriate for managers leading organizational change projects. Munns and Bjeirmi (1996, p. 83) argued that perhaps the most important key factor is the selection of a suitable project because this influences the "overall success of the project more than can be achieved merely through the techniques of project management."

Despite the vast research on projects and project management, researchers and practitioners are still looking for ways to advance project work. Much high-quality and complex work is performed in the form of projects, thus knowledge on how to become more efficient and effective is important in practice. This paper will build on this track and will further investigate the possible advantages of bringing participatory research (PR) into the field of project management and in the specific context of healthcare.

Healthcare in Sweden, as in many other countries, is going through major changes, including system-wide changes based on medical advances, increased access for employees to IT-based decision-making data and support, and new opportunities for patients to compare healthcare results and quality. As healthcare changes have evolved, new opportunities have emerged, and interest in collaborative partnerships in health-related research has increased correspondingly (Cargo and Mercer, 2008). Various forms of participatory methodologies, such as PR, have surfaced as a promising basis for such collaborations (Tierney *et al.*, 2016). Jagosh *et al.* (2012, p. 312) explained PR as "the co-construction of research between researchers and people affected by the issues under study (e.g. patients, community members, community health professionals, representatives of community-based organizations) and/or decision makers who apply research findings (e.g. health managers, policymakers, community leaders)."

While conventional health research tends to generate knowledge for understanding, which might be independent of its use, most PR emphasize knowledge for action (Cornwall and Jewkes, 1995). This complies with Gaventa and Cornwall (2006), who report that PR could support health services research and development by including in the research process those who are affected by the research problem. This reasoning is further developed in an extensive review for health research and practice that describes how PR can strengthen contacts between the community and academia; ensure the relevancy of research questions; strengthen the data collection, analysis, and interpretation; and enhance program sustainability (Jagosh *et al.*, 2012).

Besides the reported benefits, PR raises personal, professional and political challenges that reach beyond the production of information (Cornwall and Jewkes, 1995). Abma and Broerse (2010) identified the challenge of developing ideas that interest both researchers and other professionals in joining these processes, and they showed that researchers must be willing to build relationships with participants, to learn from the community, and to share both power and their own skills for the good of the community. Participants must perceive a benefit in the collaboration and the results, and they must be willing to share in the process and to deal with new concepts (Leung *et al.*, 2004). Tools and techniques from action research methodology have been used in the field of project management research (Algeo, 2014; Dick *et al.*, 2015), but the acquisition and exchange of knowledge in a team environment has received less research attention (Zellmer-Bruhn, 2003).

In our paper, we are not discussing project success *per se*, but because we have interviewed the project participants on their view of the project process, we address this issue in later sections. Munns and Bjeirmi (1996) and Cooke-Davies (2002), for example, differentiated between project success, project management success and consistent success (a combination of the two). Project success is related to the achievement of a specific goal using the project outcome as a measure (e.g. a product), while project management success is related to the achievement of cost, time, quality or other goals set for the management of the project.

Munns and Bjeirmi (1996) stated that there is no linear and axiomatic relation between the two, and it is possible to achieve a successful project even if the project management is considered unsuccessful and vice versa. This is due to the fact that projects are not islands (Engwall, 2003). A project is a temporary organization within a permanent organization and it is dependent on that organization (Sydow *et al.*, 2004; Bakker, 2010), for example, in terms of the available resources and in terms of the power dynamics between the project and the line organization (Palm and Lindahl, 2015). If, e.g., the organization is unwilling to commit company resources and provide necessary administrative support, project management can be very difficult (Munns and Bjeirmi, 1996). Finally, different project actors might view success differently (Munns and Bjeirmi, 1996). An end-customer might by happy with the final outcome (e.g. a product), but the stakeholders financing the project might be left disappointed because the cost ended up being twice what was planned for.

The scope of this study is to address the concept of PR in terms of its values and challenges in project work. This is done by analyzing how PR was applied to support the development of a digital network model for expert diagnostics in the Swedish healthcare system.

Method

Study setting

Diagnostics is a key element in the treatment of cancer, and it provides important information when selecting treatment. Today in Sweden, there is a great lack of pathologists and therefore a lack of competence and capacity both for diagnostics and for training new pathologists. A recent government report (Beckman Suurküla Is, 2012) shows a range of challenges for Swedish pathology, for example, the lack of pathology capacity creates restrictions in many care processes, such as in cancer, with extended lead times and lower levels of quality as the result. The lack of capacity is seen both in the labs and in the diagnostic processes. The report also shows a skewed distribution of the capacity, which leads to inequalities in healthcare.

In light of this problem statement, a goal was set at a meeting of chief pathologists of the Swedish Association of Local Authorities and Regions in 2013, and in order to provide the "right answer with equal and short response times, 95% of the pathology referrals shall be replied to within 48 hours" (EXDIN, 2013, p. 6). The following strategies were formulated in order to achieve this goal:

- networking with the ability to assess digital preparations all over Sweden;
- secure the training of, among others, pathologists;
- systematic quality work; and
- national meetings for the exchange of knowledge.

Later the same year (December 2013), the regional cancer center's liaison group adopted the above four points in a strategy document for the work of regional cancer centers within pathology. The Swedish healthcare system should be understood as traditionally organized in so-called drainpipes or silos, even though the patient's way through medical care many times is characterized by different interactions with multiple specialties and disciplines. The idea of networking as a platform for increased collaboration between different disciplines, organizations and governments has been given increased space in the debate about how to structure the Swedish healthcare system.

Exchange of Diagnostic Images in Network (ExDIN) was an R&D project externally funded by VINNOVA, the Swedish agency for innovation, striving to establish national web-based, virtual network collaborations in pathology in an attempt to realize the above goal and the four-point strategy. At the start of the project in 2012, the development of the network model was organized as a pilot study including several stakeholders, e.g. Swedish medical and technological universities and hospitals, product developers, researchers and private

consultants. Within the first ExDIN project, new technologies that should enable digital pathology were developed and tested, and within the second ExDIN project, a national network with different actors, both private and public, was supposed to be established.

For the purpose of this study, the second ExDIN project was used to address and explore the concept of PR, its values and challenges in project management, and how it could be used to support the development of a digital network model for expert diagnostics.

Research design and methods

A PR approach was used in which researchers worked collaboratively with key stakeholders involved in the development of a digital network model for expert diagnostics. This approach involved research and data gathering in the following six work packages: first, participation at workshops, including the presentation of a preliminary research agenda; second, presentation of a revised research agenda; third, interviews with project managers and steering committee members; fourth, feedback sessions; fifth, participation at a project conference, including additional feedback sessions; and sixth, concluding interviews with project managers. Below, each work package is described in detail.

Participation at workshops and the development of a shared research agenda (WP 1 and 2). In 2015, the researchers (the authors) were invited to participate in two project meetings to present proposals on the plan for PR. As part of this work package, the researchers also took part in shared discussions of the project's implementation and goals, which provided valuable insights and an in-depth understanding of the overarching project.

Interviews with project managers and steering committee members (WP 3). In January and February 2016, 12 semi-structured interviews were held with members of the project group and the steering committee. The research ambition was to interview all members of the project group and the steering committee, but one member did not respond to e-mails or phone calls and was not interviewed. Three informants represented the project group, four represented the steering committee, and five represented both the project group and the steering committee. The researchers developed an interview guide in collaboration with the project manager and the project administrator (also a former project manager). The interview guide covered, for example, questions about obstacles to progress and what issues the participants who were part of the project group perceived as most relevant to the project group at the moment, while the members of the steering committee were asked what issues were most relevant for the steering committee. During the interviews, all informants were asked about their own project role and what they had done to develop and advance the project. The first author conducted all the interviews, of which ten were conducted by telephone and two as face-to-face meetings in the researchers' workplace. Ten interviews were audio recorded and transcribed verbatim, two interviews were only recorded by the researcher's notes because one respondent did not want to be recorded, and for one interview, the recording device did not work. The interviews lasted between 60 and 90 minutes.

A qualitative content analysis guided by Weber (1990) was used to analyze the interview data. The researchers collated the data set separately and made systematic comparisons to identify patterns in the form of recurrent or similar descriptions. Throughout the analysis, internal project materials, e.g. project plans, were used to contextualize the preliminary categorizations and the final interview findings.

The second author also analyzed the conversations during the interviews when reading and analyzing the content of the answers as part of understanding the effect of PR.

Feedback (WP 4 and 5). In March 2016, the first author presented preliminary findings at a shared workshop for the project steering committee. After the presentation, the audience was encouraged to discuss and reflect on their reactions to the results, what surprised them and what was expected, what was missing, how to take the next steps, and how they could

contribute to the project in the future as well as about their role in the project. In September 2016, the researchers were invited to a consortium meeting with all participants working with the project. At this meeting, new project members were introduced and different parts of the project were presented, e.g. a system for how to work with new partners. There was no specific role for the researchers other than listening and commenting as participants in the project. The final analysis was written in a report sent to the project management in September 2016.

Concluding interviews with the project manager and the assistant project manager (WP 6). In November 2016, two semi-structured interviews were held with the project manager and the assistant project manager, also representing both the project management and the steering committee. The interviews were structured not only to address their perceptions and understanding of the project's overall progress, but also the contribution from having external researchers involved in PR. The interviews addressed the PowerPoint presentation from March of the same year, and the questions explored if and to what extent progress had been made in areas where the project and steering committee members saw project weaknesses. The interviews lasted between 50 and 110 minutes and were audio recorded and transcribed verbatim. The data analysis followed the procedures of qualitative content analysis as described above.

Results

This section presents key outcomes from the six work packages. The focus is on the work of the researchers and the interactions between the researchers and the project, including participation at workshops and the development of a shared research agenda (WP 1 and 2), interviews with project managers and project group and steering committee members (WP 3), feedback (WP 4 and 5), and concluding interviews with the project managers (WP 6).

Participation at workshops and the development of a shared research agenda

The researchers entered the project at a stage that was not only characterized by some project progress, but also by a general awareness that if things continued to develop at the present pace, the project would not reach its set goals. During this stage, the researchers took part in two project meetings to present their idea on how to study the project. The initial idea was to evaluate parts of the project that were considered successful. Early on, the researchers became aware that this was not what the project needed in order to succeed. In the meeting, a lot of frustration about the lack of progress in the project was expressed. Through discussions, the research focus changed from measuring and evaluating project outcomes to fully addressing the process of project management – the work of the project group and the steering committee. This new research agenda called for a participatory approach, and the researchers' focus turned to how to support and contribute to the development of a digital network model for expert diagnostics. The following areas of investigation were presented in the second meeting and approved by the project group and steering committee:

- the description of the project and the project work by the participants in the project group and the steering committee;
- what factors enabled and obstructed the progress of the project; and
- what was regarded as important for the continued work on the project.

Interviews with project managers and steering committee members (WP 3)

The interview guide was developed in a way to both encourage the respondents to reflect on their own role in the project and to collect data for analysis to advance the project. The guide

was divided into six areas, each including several questions (see Table I). The initial interview questions addressed the person's role and their own organization's role in the project, questions that we thought of as warm-up questions in getting to know each other. The second part was about the current status of the project where we wanted to catch what

Area/questions	PG	SC	PG & SC
1. General information about roles			
Describe your role in the project and why you got the role	X	X	X
Describe your role in the organization that you represent	X	X	X
Describe your organization's role in the project	X	X	X
2. Here and now!			
What issues/questions are relevant right now?	X	X	X
What thoughts about the project are you caught up with at the moment?	X	X	X
3. The role of the project group PG/steering committee (SC)			
Describe your view of the role of the PG/SC within the project	X	X	X
What are the strengths of the PG/SC? In what way are they strengths?	X	X	X
What are the weaknesses of the PG/SC? In what way are they weaknesses? How does the PG/SC handle these weaknesses?	X	X	X
Do you perceive that all represented organizations have their say? Why/why not?	X	X	X
What do you think about the mandate of the PG, in relation to your own organization, and in relation to the other organizations?	X		X
What do you think about the SC's mandate in relation to the PG and in relation to the participating organizations?	X	X	X
A lot of organizations are part of the project – do you have a common goal? Has it always been like this? If not – is that a problem?	X	X	X
Describe how you experience the collaboration within the PG/SC	X	X	X
Do you think the PG/SC should continue working as now, or do you want changes? What changes, if any, would you like to see?	X	X	X
Describe how the SC has been managed, from invitations to information distribution to follow-ups	X	X	X
4. External influence			
If you think about circumstances outside the PG/SC, what are the most important factors that have facilitated or hindered the project progress?	X	X	X
Can you think about incidents/issues/decisions – either positive or negative – that have been especially problematic, but important, for the project?	X	X	X
5. Your own role			
Describe what you think is your foremost important contribution to the project. In what way is that important?	X	X	X
In what way have you contributed to project progress?	X	X	X
How was/is your possibility to engage in the project? Do you have the prerequisites that you need or wish for?	X	X	X
How do you want to contribute to the project in the future?	X	X	X
6. Project management			
Describe how the project management has worked, from invitations to information distribution to follow-ups	X	X	X
Is there a difference over time? In what way?	X	X	X
If you could point out some extra-important persons for the project – who would they be?	X	X	X
7. The future			
If you look into the future, what are the most important issues to take action on? Why are they important, and how will you take action?	X	X	X

Table I.
Interview questions to the project group members (PG) and/or the steering committee (SC) members

was most important for them at the time, and this was also a way to be able to concentrate on the subsequent questions by providing the interviewee the opportunity to first talk about issues that were most important for them at the moment. In the third part, our questions focused on the project group and the steering committee, e.g., their strengths and weaknesses, trying to grasp where to find possible changes for project progress. The fourth part investigated the context of the project and if there were any external factors that could be used better in the project or hindrances that needed consideration. In the fifth area, the focus was on the person being interviewed. Here, the aim was to make them see that everyone in the project, including themselves, is very important for progress and, if possible, to be self-critical in order to move the project forward. The two final areas included questions on the project management and thoughts about the future of the project.

The main findings from the interviews were later communicated to the steering committee, and the next section summarizes their reflections on those findings.

The researchers' approach to invite all project managers and steering committee members to the interviews contributed to a certain impact and a perception that all were heard and listened to. The project manager later confirmed this when he gave feedback to the first author and reported that several of the respondents had commented on the interview occasion. As observed by the informants, the interviews were conducted professionally with reasonable and relevant questions. Neither of the researchers has gotten responses on research interviews before, and we have in total conducted about 200 interviews.

Feedback sessions (WP 4 and 5)

There were no special reactions to the oral presentation of the preliminary results in March, and there were no opportunities for discussion. It seemed like the steering committee recognized the picture that was presented, i.e. the researchers had captured valid views on the project. Because there was no time for discussion, the researchers offered time to discuss the results further with the project management after the meeting, but the offer was not taken up.

The consortium meeting in September 2016 had a much more positive energy than what the researchers experienced in 2015. The project managers presented results in the following areas: project status, a workshop on how to reach the goals, pathologists' views on the project, how collaboration was working in practice, a demo of a review of the network, and external communications. The project manager asked the researchers if they wanted to add anything or make any comments at the end of the consortium meeting. The first author commented on the responsibility for how to reach the goals that were discussed. Because there seemed to be a strong expectation that the project manager had the responsibility for making things happen, the researcher asked if the participants expected the project manager to tell them what to do, or if they could start taking the necessary actions on their own. No one responded to this in the open, but the project manager reported afterwards that he experienced the question as accurate to ask.

Concluding interviews with the project managers (WP 6)

Experienced effects of the interview study. The project manager and the assistant project manager reported a general feeling that the interview study had been positive and supportive. Especially the project manager expressed that he experienced the interview study as very positive and that it was something that this kind of externally funded project should have:

> I think it was very good that there were people from outside the project, who were not biased and who asked reasonable and relevant and sound questions. Partly it opened us up for thoughts, and partly you came with recommendations. And we got in a way a transparent examination of the project. As a project manager, I can always walk around having opinions on a lot of stuff, or

> someone else of course, but at this point we got someone from the outside conducting interviews with a broad group of people […]. Some things were suspected and yes, that was true. Other stuff I had an opinion about, but learned that it was not deeply anchored […] so this was very good to learn. […] I believe it improved the project a lot. We have not reached all the way, but we are now prolonging the project another year and tightening it some more. So, too me, it has been great.

Although it remains challenging to trace specific outcomes from the interview sessions, both the project manager and the assistant project manager reported that the steering committee had changed representatives and that this was due to the interview study. Later it became clear that only one person had changed, and it was in one of the organizations that already had strong engagement in the project. The interview showed that it was unclear about who belonged on the steering committee, and one concrete action to address this was put on the project website. The project manager reported that the interview study gave him energy and encouraged the steering committee to begin working with formulating new goals, but then nothing happened. The assistant project manager reported a feeling that it was easier than before the interview study to attract resources to the project from each organization. The project manager reported a better structure within the steering committee, and the assistant project manager reported a more frequent meeting schedule in the project group. A major change was that the project had been able to recruit a lot of new partners to the project, including regions and hospitals that wanted to be part of the digital network. The project manager re-started making to-do lists, which was asked for in the interviews, but because very few took responsibility for their actions, this work ended. One piece of feedback from the researchers was that the project should start organizing the project work in the way they wanted it to be organized in the future (after the project phase), and that was something that the project manager experienced that they had actually done. The interview study reported a lack of pathologists in the project, but the project manager reported no change in number of pathologists and the assistant project manager reported that there had been a positive change, especially in the steering committee. The project manager concluded and said that one positive thing with the interview study was the way the results were presented back to the project:

> You showed that quite sharp critique could be delivered. It was objective and neutral, which meant that people [could relate to it in a good manner]

The assistant project manager was also positive, but was more vague:

> I believe it had an effect on us. I believe. But maybe, well […] you never know what is what.

Discussion

The aim of this study was to further address the concept of PR and its values and challenges in project work, and in this context how it was applied to support the development of a digital network model for expert diagnostics.

One key ambition with the PR in this project was to influence the project work (cf. Cornwall and Jewkes, 1995). That ambition was set after the first interaction with the steering committee and the project group where it became clear that the participants were frustrated with being "stuck" in the project process. The frustration was somewhat taken out on the researchers when presenting the idea of studying one of the participant organizations that had made the most progress. Such a reaction can be experienced as a burden for the researcher, but it might be positive for the project. The experience in this project was that the reaction gave the project participants the chance to express their frustration because it was more pointed toward the researchers than the participants' colleagues. At the same time, the researchers understood that there was frustration toward the colleagues within the project and that this had to do with the lack of engagement and

effort from some individuals within the project. This led the researchers to conduct interviews focusing not only on the project process, but also on each and everyone's own effort in the project in order to create incentive for change in line with Gaventa and Cornwall (2006). The latter can be seen as one value of PR for the project work.

The information from the interviews with the project group and the steering committee was very much the same as that from the interview with the project manager. This is not surprising, and one can ask what the benefits of PR are if the informants share almost the same views. The project manager said that when the feedback confirmed his thoughts it was empowering to continue working with developing his ideas. This result suggests that it is possible that PR can enhance project management work in the same manner, as it can enhance program development in healthcare (Jagosh *et al.*, 2012). When the views of the different participants and the project managers did not match, it was experienced as positive by allowing the project management to further explore the different views before taking action.

One of the challenges with PR is getting the participants to be willing to contribute to the PR process (Leung *et al.*, 2004). By using "warming up" questions, an open interview situation can be created and thus be a base for wanting to contribute in the interview. The quality of the interviews is important for the quality of research (Malterud *et al.*, 2016), and from our study it can be argued that the quality of the interviews is of utmost importance for PR, including the formulation of the questions and the conversation itself. The second author noted when analyzing the interviews that the participants in the interviews shared their views and were empowered to do so through challenging self-reflecting questions.

Another challenge of PR in relation to project work is to make the research happen, i.e. to translate the knowledge from the interview analysis into practice. In this particular project, the participating organizations were important in order for the project to make progress. There was a lack of mandate over resources, which is common in project work, and it is often such that it is the permanent line organization that "owns" the resources and not the project (Palm and Lindahl, 2015). In this perspective, the PR might have been more powerful if the PR involved more actors than just the project participants and had also involved decision makers and resource owners in the home organizations (cf. Lo Re. *et al.*, 2015).

Is PR the way to project success? The question of project success can be discussed from many points of view. The first point to note is that the project did not reach its stated objectives, and the project management did not reach the process goal (cf. Munns and Bjeirmi, 1996; Cooke-Davies, 2002). For example, the number of "real" examinations of digital images was far from being reached, and the project did not follow the budget (the organizations did not work as much as they should and did not use all work hours in the budget). Despite this, the funding organization was satisfied and granted the project to continue for one additional year with retained funding. Most of the participants on the steering committee and the project group agreed that it could be considered a success that they had come as far as they did, and especially the success of including new partners. PR is not a single solution to project success, but it might contribute to project progress and especially project management empowerment.

Methodological consideration

The researchers conducted the interviews evaluating PR with the project manager and the assistant project manager, and this might have influenced them to answer in a more positive way than if others had conducted the interviews.

Conclusion

The present knowledge and experience in terms of running projects are not sufficient, and hence more knowledge on how to ease the process is needed. Based on our findings, we

conclude that PR might enhance project work through challenging interview questions and clear feedback. PR might empower the project manager in their work by illuminating challenges and possibilities in the project process. The research also suggests that PR should include a broader range of actors, especially those in a real position to make decisions, in order to prepare the organization for change. Despite the benefits of PR, there should not be an over-reliance on PR being the road to project success.

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