TYPES OF PEOPLE IN COMMUNAL DEVELOPMENT PROJECTS IN CONSTRUCTION SECTOR: ARE THEY EFFECTIVE TOGETHER?

Latvala, Marika; Singh, Vishal
Aalto University, Finland

Abstract

Several issues in the real estate sector require communal development projects, where stakeholders need to self-organize and voluntarily take the responsibilities to realize the goals. The challenge is that such projects remain no one's, but everyone's responsibility. This paper investigates the group dynamics in such projects, focusing on creating a typology of the participants. The findings are part of a larger project that aims to understand who should be part of such projects, and what is needed to realize the desired change. The effective change management for these projects is critical so as to be lean with organization and management of these workshops such that we create more value for participants despite of the limited resources. The research data is collected from six workshops organized by an association of real estate owners in Finland. The research data is analysed using a coding scheme developed on the basis of literature review. Findings reveal five types of people in the workshops: opinionated leaders, empathetic leaders, critics, passive respondents, and listeners. The significance of these findings for management and planning of such projects is discussed.

Keywords: Organizational processes, Participatory design, Teamwork, Case study, Human behaviour in design

Contact:
Dr. Vishal Singh
Aalto University
Civil and Structural Engineering
Finland
Vishal.Singh@aalto.fi

1   INTRODUCTION

Statements such as "economy is not on the right track, and we need to think how to do things differently and more effectively" have become all too common these days. Such statements are not only limited to the real estate and construction practice which needs to collectively improve its processes and practices, but these sentiments also apply to research and development projects. There is a need to do more with less and less resources, and do it in an effective way. There is increasing call to be lean by reducing waste in all aspects of project management, including planning for development projects that aim to bring about a communal/collective change. There is also the need to create more value for the users (Koskela, 2000); participants of a communal development project in this case. Communal development projects are those projects that aim to bring about a communal/collective change, and may be driven by a non-profit organization or industry association. In communal development projects, it is expected that those who aim to be part of the development projects of the future will also be required to foresee and capture value today. Consequently, those who are responsible for planning these projects, and also those who participate, need to figure out more carefully who they need in the process, and who should engage in these projects to create that extra value, and to ensure that it is worth participating.

There are different non-profit and public organizations in the Finnish real estate and construction sector such as Organization R, which facilitate different communal development projects, such as 'developing measures for effective knowledge work in construction and real estate companies'. Despite the facilitation provided by Organization R, the planning for development projects, and how far they succeed, depends on how the participating members self-organize. Unfortunately, in the Finnish construction sector, there is limited documentation on the effectiveness of such development projects, and the commitment and engagement of the participating companies remains unclear. So how can we make these development projects and the development workshops effective? How do we get the participating companies to make the most of these projects, rather than participating as an obligation, as is suspected at present? In addition, are member organizations represented by the right people, that is, people who can extract value from these projects for their own organization, as well as contribute effectively to the development projects?

This paper presents findings from an ongoing PhD study that is trying to answer these questions. Who should be part of the communal development projects so that the work in these projects is effective? And, what kind of support structures are needed for making the desired change happen?

Before we can start forming effective development project groups and make the project itself effective, we need to know what types of people are participating in these projects and workshops. In this paper, we focus on this part itself. We show that using a set of attributes identified from the literature as well as the preliminary observations, and applying them methodically on the workshop data, we can find patterns to cluster workshop participants into different types. Based on our findings, we identify five different types of people participating in the workshops. This part of the study does not tell yet which combination of people is better for the effectiveness of the workshops and the project, and what kind of support structures do the facilitator and the companies need. That will be covered in the future articles. All the primary research data so far has been collected from three different projects including altogether ten workshops from one case organization, Organization R in Finland. These three development projects took place in fall 2015 and spring 2016.

This article is organized into six sections. First three sections introduce the subject, explain the background and the methodology, including a description on how the data was gathered and analysed. The last three sections explain the results, followed by a discussion and conclusions from the findings.

2   BACKGROUND

There is a lot of research done on leadership in change, qualities of leaders, individual competences needed in group work, and how individual personalities have an effect on team performance. These previous results and theories are used in this research to find different attributes that could help us cluster participants into different types. Some of the key attributes relevant to our study are reviewed here:

2.1 Effective leadership in change, leadership qualities

Different development projects aim to bring about one change or the other. Kotter (1995, 1996) says that change needs both management and leadership. Leadership in change needs to be effective (Gill, 2010). Effective leaders want to know what needs to be done and they create action plans. Effective leaders say "we" rather than "I", and put their organization first (Drucker, 2004). Some of the requirements for effective leadership are knowledge about the field, good reputation, high integrity, solid relationships, keen mind, and strong drive to lead (Kotter, 1988).

At the same time, development project teams as well as Research and Development teams, seem to have characteristics similar to self-managing teams (Stoker et al., 2001). In these situations, communication needs to be open and participants need to be able to share their thoughts. Leadership should not be authoritative, but if it happens to be authoritative then leaders should be able to give others the freedom of speech and accept different opinions (Kets De Vries, 1999).

Leadership can be viewed in different ways: who are the leaders (person), what have they achieved (result), where do they operate (position), and how leaders make things happen (process). Leadership is not only about the person, but also about the position the person has in the organization (Grint, 2005). Leaders are most likely to be those who have the biggest stake in outcomes (Govindarajan and Gupta, 2001).

Leaders should be able to give space to others in the team to develop their competences, but also make sure that the tasks are done in right time and the results are what they are supposed to be. So, leaders should be more consultative and considerate. Others seem to think that self-managed teams need directive leaders to get work started (Stoker et al., 2001). Leaders should also have emotional intelligence, not only technical skills. Motivation, self-awareness, self-regulation, empathy and social skills are needed. As stated by Ralph Waldo Emerson "Nothing great was ever achieved without enthusiasm" (Goleman, 1998). Having a helicopter perspective is also an important quality for leadership (Buchanan and Boddy, 1992).

Charisma is one of the leadership styles (Stoker et al., 2001). Transformational leaders are charismatic and they challenge others all the time. They also respect others and give them responsibilities. They clarify boundaries and involve others in decision making (Parry and Bryman, 2006).

2.2 Individual competences and personality

"The individual characteristics of team members are potentially relevant" (Stoker et al., 2001). Many researchers have noted that individuals have big, even crucial role, in collaborative development projects. Different individual competences, sets of attributes, are needed in open innovation and development teams. Some of these competences include novelty generation, learning, negotiation, coping with chaos, and team work. Team members need to be willing to learn from others, share information freely; be sometimes really straight forward; be social and easy to access; take initiatives, organize and ask questions; be flexible, communicate clearly, respect others; be curious, but also critical and active listeners, listening to others (du Chatenier et al., 2010). There is also the need for communication skills like listening and helping others with helpful questions, organizing, integrating, building trust, and compromising (Chen and Lin, 2004).

Assessing different personalities is one way to understand groups, because personality affects group work. For example, Bradley and Hebert (1997) and Chen and Lin (2004) use the Myers-Briggs Indicator (MBTI), a well-known psychological test that characterises people's personalities in terms of their extroversion or introversion behaviour among other attributes, as part of their research. Extroverts are external and they act, while introverts are internal and they reflect. Similarly, Morgeson et al. (2005) introduce four personality characteristics: conscientiousness, extraversion, agreeableness and emotional stability. Kichuk and Wiesner (1997) add a fifth one, openness to experience and talk about neuroticism rather than emotional stability.

2.3 Resistance and other negative qualities

There should not be those who fill the room or create mistrust, but if they happen to be there, they need to be led the right way. Also, those who resist change are those that need to be taken into account if they are part of a coalition. They might have a position or knowledge that is needed (Kotter, 1995).

Ford and Ford (2009) suggest that strong leaders need to see and understand resistance. Those who resist might have questions or knowledge that leaders can use, and leaders should not only listen to them, but also take them into consideration. Leaders can use resistance as a resource.

3 RESEARCH METHODOLOGY

3.1 Research methods and design

This research is based on qualitative methods. Since the research involves people and social phenomenon that is affected by subjectivity of social actors, qualitative methods are justified (Bryman and Bell, 2015).

The research reported in this paper is designed as case study research, as part of a bigger multiple-case study. As Bryman and Bell (2011) suggest, multiple-case study can show what is unique and what is common for all cases. In our context, every case is a unique project, each project has more than one workshop that provides opportunity to make observations, collect data and validate it.

In the research, we use the development projects of Organization R as our cases. All these cases have different topic and mostly different participants, but the process is the same. Organization R is an association of Finnish real estate owners and developers and has its own process for facilitating development projects, building on the ideas of co-creation. As Ramaswamy and Gouillart (2010) state, the co-creation approach is to identify stakeholders, understand how they interact now, organize workshops between stakeholders, and build platforms to implement ideas. Organization R's members bring up the problem, which they cannot solve alone, and hand-picked members and other contacts try to find solutions through the workshops. 2-3 members of Organization R's crew participate as facilitators to coordinate the project, gather the participants, plan the workshops, and make a report out of the workshop results.

All of organization R's development projects include opening and closing seminars, which are open to everybody interested in the specific topic of the seminar. Every project includes 3-5 workshops for invited participants only. Mostly participation invitations are directed to companies and organizations that have expertise in the related topic, and not to individuals in person. Companies typically decide who all will represent them and take part in the project, and who will represent them in specific workshops. There can normally be 1-3 participants from each company. Mostly companies send those who are working around the relevant topic and can contribute to it.

Duration of a typical project is 3-6 months and there is a workshop every 3-4 weeks. There is continuity between workshops, because even though the participants are working on a common topic, they may come to the workshops and the project from different angles. Each workshop includes an introduction session, and separate sessions for individual work and group work. The facilitator(s) avoids getting involved in the group work so that the participants are not led on and new ideas can come up. Therefore, groups are self-managed and results mostly depend on the participants and the group dynamics. Typically question forms are used to document individual thoughts about the topic at hand, group discussions, and collect the answers and consensus of the group. Facilitator will refine the collected material and uses it as a part the final report.

The PhD study reported in this paper includes data from three different projects. In addition, experience from two other previous projects has been used to identify the attributes. The three development projects used as case study are C1, and C2 and C3. This paper mainly focusses on project C1, while the observations from projects C2 and C3 are to be analysed later.

Data is collected from the workshop using multiple media consistent with the typical ways of data collection for qualitative research. Silverman (2000) identifies five methods for gathering information when doing qualitative research: interviews, audiotapes, videotapes, texts and ethnographies. In this research data from the workshops is collected using videotapes and audiotapes, besides hand-written notes based on observations. The lead author of this paper is part of the facilitator's crew and collects the research data among facilitating the group work.

The collected data is transcribed non-verbatim, but to include all the relevant comments and statements. The transcribed data is subjected to protocol analysis, using a coding scheme that is developed based on the attributes identified from the literature and preliminary observations. This analysis is conducted to identify patterns in behaviour of the participants, and cluster them into different typologies. With such an analysis, this paper aims to address the following question and hypothesis:

- Q1: How do the participants in a development project behave during a group task?

- H1: Using behavioural attributes, participants in development projects can be clustered into different types.

To validate results in this paper we use preliminary analysis of cases C2 and C3. Since the research is in its early stages, and better validation cannot be done at this time, the next step is to use other projects from other organizations than Organization R to validate results and make sure they are reliable. Since research is qualitative and involves a lot of subjectivity, there is need to test attributes and types using other people to make observations. Validation and reliability checks will be done using personality tests like Myers-Briggs and colleagues' observations.

3.2 Empirical setting

Case C1 aimed to develop measures for knowledge work. There were 23 organizations in the project, besides the facilitators. Among these participants, there were four participants from public organizations, nine from private organizations, nine property owners, three workplace consultants, three consultants from construction sector, three researchers, and one contractor. Some of the organizations are pioneers, some of them had started to make changes and some of them just came to learn how to get started. Workspace consultants and researchers were invited to join, since they have the latest knowledge about the topic to share with others. In total, there were 43 participants. 20 of them were women and rest of them were men. Some of them are leaders in their own organization, some of them work as an expert, and some of them even have both roles.

In this paper, we concentrate on finding types and clustering participants into different groups by analysing their behaviour using certain attributes. Therefore, we are not going to consider other factors, for example, gender or age. We will later also track other positions of the participants than leader while analysing the results, because positions or numbers of experts is also likely to affect the desired group composition.

Project C1 started in September 2015 and finished in December 2015. There were five workshops during C1. The opening workshop was right after the opening seminar. Other workshops were held 2-3 weeks apart from each other. The last workshop was right after the closing seminar. Observations were made across all these five workshops, but analysis and results are based on workshops 2, 3 and 4. The opening workshop did not have videotaping, just notes were taken in an excel-sheet. Observations were based on specific moments in time and situation. Workshop 1 had one circulating camera, and the quality of audio was poor, forcing most of the video-analysis from workshop 1 to be based on visual cues and gestures. Observation are based on what researcher saw and heard at the workshop and how people acted in the video. Workshop 2 had one circulating camera and two fixed cameras. Workshops 3 and 4 had one circulating camera, two tape-recorders, and two fixed cameras.

Observations from opening workshop and workshop 1 gave preliminary indicators on how people behave in these groups and situations. These were used to help group formation for other workshops. Groups were formed by using some basic rules. Each group, if possible, had people from 1) different organizations, 2) different working groups (owner, consultants and so on) and 3) companies that are in different state of maturity (pioneers or so). There were 5-7 groups in every workshop and each group had 4-6 people. Groups were different in every workshop. therefore, more knowledge could be shared between different people and also to get new ideas and different angles in every workshop.

3.3 Selected attributes

At least so far, we have not been able to find from the literature a coding scheme that we could directly apply as-is. Therefore, we created our own coding-scheme, based on the literature review mentioned in section 2 and the previous observations. Previous observations were made in two other projects in Organization R, and are based on our knowledge and experience of human behaviour. Since we do not know all the people participating beforehand, and observations are meant to assist the formation of desirable groups within a short time during the first workshop, we chose attributes that are easy to observe and identify fast. Participants are different in every project, so there are limited possibilities to do, for example, thorough personality tests.

Following attributes were identified to be used for coding scheme and the protocol analysis:
- Leads (L)=Leader, leads work, leads discussion, and shows helicopter perspective (Bradley and Herbert, 1997, Buchanan and Boddy, 1992, Kotter, 1988)
- Makes promises (MP)=Makes promises about next step

- Explains (E)=Explains theories, teaches, comments (du Chatenier et al., 2010)
- Shares (S)=Talks a lot of his/her experiences and share things (du Chatenier et al., 2010)
- Is excited (IE)=Is excited about subject and developing, personal enthusiasm (Goleman, 1998)
- Organizes (O)=Organizer, who takes place as a chairperson of the group (Chen and Lin, 2004)
- Listens (LI)=Doesn't say much, if anything, but looks interested (du Chatenier et al., 2010, Chen and Lin, 2004)
- Takes notes (TN)= Demands answers, takes notes
- Challenges (CH)= Challenges others, asks questions (du Chatenier et al., 2010, Chen and Lin, 2004, Parry and Bryman, 2006)
- Fills the room (FR)= All over the discussion, me, me, me… or talks, talks, talks… (Kotter, 1995)
- Complains (C)=says "others should do" or "…but others"
- Resists (R)= shows pessimism, "we can't do it" or "it's not possible because…" (Ford and Ford, 2009)
- Mistrusts (M)= shows and creates mistrust (Kotter, 1995)

4 ANALYSIS AND RESULTS

Based on the protocol analysis over the collected data and the clustering patterns, five types of people were identified who can broadly be clustered into the following types:
1. Opinionated Speakers: Leaders or participants who like to talk. They like to share their opinions, knowledge and experience. Might have strong own agenda.
2. Empathetic Leaders: Leaders who tell their ideas, but let others tell their feelings and opinions too.
3. Active Respondents: Those, who comment, share and ask questions.
4. Passive Respondents: Those, who listen and talk if they get chance to do it.
5. Listeners: Those, who mainly listen.

In the second, third and fourth workshops protocol analysis was used to identify frequencies to assess how many times someone did something. Clustering was done using the strongest attribute of each person. Type 2 needed to have attribute 'leads' besides attributes 'shares' and 'explains' and type 1 needed to have attribute 'fill the room' more than once. Type 3 had 'challenges', 'explains' and or 'shares', whereas type 4 mostly had 'listen', but also 'explains' and/or 'shares'. Type 5 mostly had only 'listen'. Since most of the participants were type 3 and there were only few notable variants (2-3 variants/type) of other types. Table 1 shows an extracted example from the coding scheme, on how the participants were clustered into one of the five types and what kind of variants there is.

Table 1. Example of five types (Part = participant, Type = type of people, WS =workshop, attributes, see ch. 3.3, f. ex. L, 2x = person lead twice)

Part	Type	WS	Attributes for observations											
			L	MP	E	S	IE	O	LI	TN	CH	FR	C	R
C1A	5	2			1x	1x			5x	1x				
C1B	2	2	6x		5x	3x		2x			1x			
C1C	1	2	1x		1x	7x	1x					3x		
C1D	5	2							6x	3x				
C1E	4	2			1x				1x					
C1F	3	3			6x	1x								
C1G	2	3	3x		7x	2x		3x			1x	(2x)		
C1C	1	3	3x		8x	2x		3x			2x	3x		
C1I	5	3			1x	1x			5x					
C1J	4	3			2x	1x		1x (2x)	2x					
C1K	1	3	1x		6x	4x		1x				3x		
C1L	2	3	2x		5x	1x		4x	1x	1x	2x			
C1M	2	3	4x		8x	5x		2x			2x			
C1N	2	4	4x		11x	5x		2x						
C1O	4	4			1x	4x			4x					
C1P	2	4	2x		9x						1x			

There was no-one really making promises, since facilitator did not ask them to do so, and the format of the workshops did not give such opportunities. Same goes with resists and complains. Mistrust was left out already after the opening workshop, because the situation was that no-one really needed to create mistrust towards others.

Those with strong opinions, who fill the room, and share or explain a lot are classified as Opinionated Speakers (type 1), like participant C1K in the third workshop. A variant in this type is also people who are mostly opinionated, can also lead, but mostly are loud and dominating, like participant C1H in second and third workshop. A second category of participants (type 2) are those who may lead and fill the room, but they allow and encourage others in the room to participate as well, for example participant C1G. A variant of this type 2 category of people are also those who lead, explain, share, make decisions and proactively organize a lot of the activities, like C1B in workshop two, C1L in third workshop, and C1N in the fourth workshop. Interestingly, those who acquired and showed leadership during the workshops were also people who held leadership positions in the companies they represented, for example C1C, C1M, C1G, C1L, C1N and C1P. The third category (Type 3), which was the largest category of workshop participants were people who commented and asked questions, but did not lead or take much initiative in any discussion, like C1F. Another larger representative category (Type 4) was that of people who were primarily listeners and generally passive, making occasional comments. For example, people like C1E in second workshop, C1J in third workshop and C1O in fourth workshop. The last category (Type 5) of people were those who remained quite all through, but were active listeners, observing and taking notes, for example people like C1A and C1D in second workshop and C1I in third workshop.

Nonetheless, as seen in Table 2, the type of participation is not rigidly fixed to an individual's personality, but it may also depend on the group composition such that the same person can behave differently in different scenarios. For example, some people moved from Type 5 to Type 4 or Type 3, or from Type 4 or Type 3 to Type 2. This can also be because of the change in group leadership. It appeared that some people may need a nudge from the facilitators or leaders to get them to be more proactive. For example, people like C1A, C1R, C1I and C1C needed someone to ask or give them space to tell their opinion or knowledge instead of them telling it right away before they move from 5 to 4. Similarly, some people like C1M, C1S and C1Q took the lead when they were in a different group, and changed from 3 to 2.

Table 2. Example of participants changing type (Part = participant, Type = type of people,
WS =workshop, attributes, see ch. 3.3, f. ex. L, 2x = person lead twice)

Part	Type	WS	Attributes for observations										
			L	MP	E	S	IE	O	LI	TN	CH	FR	C	R
C1A	5	2			1x	1x			5x	1x				
C1A	5	3							1x	1x				
C1A	4	4			8x				3x	1x	1x			
C1M	4	2				4x			4x					
C1M	2	3	4x		8x	5x		2x			2x			
C1M	2	4	1x		2x	4x					1x			
C1D	5	2							6x	3x				
C1D	4	3			4x	2x			3x					
C1D	3	4			5x				2x		2x			
C1Q	3	2			3x				2x					
C1Q	3	3			5x	2x			2x	1x	2x			
C1Q	2	4	6x		8x	3x		4x		2x	3x			
C1R	5	2							3x	1x				
C1R	3	3	1x		7x	6x		2x	1x	2x	1x			
C1R	4	4			3x				4x					
C1I	5	2							3x					
C1I	5	3			1x	1x			5x					
C1I	3	4			4x	2x								
C1S	3	3			3x	5x			2x		1x			
C1S	2	4	5x		14x	2x		1x		1x	3x			

5 QUALITATIVE OBSERVATIONS AND DISCUSSION

Leader or leaders are found in most of the groups. Some of them even have so strong drive to lead that they fill the room, which takes them into the league of opinionated speakers, unlike the more desirable empathetic leaders who are able to encourage the entire group to contribute. Participants, who already are leaders in their own company, almost all the time take the lead or at least are active in discussion. So participants' position within their own organization also affects how they engage in communal development projects. Some people emerge as leaders because of their charisma, and others seem to listen to them and almost want them to lead the discussion.

The participants who are experts in their field and who are mostly invited because of their knowledge on the topic might still not say anything or mostly listen and say something only when is asked. Nonetheless, most of these invited experts are those who comment, share and take part in the discussion. Those experts who say little mostly take notes which they share later, so they still contribute to the work. So being an expert of that certain field doesn't mean you are ready to lead or even take part of the discussion. This implies that personality affects, how you behave more than your knowledge about the subject. This also implies that non-expert can be active. Number of experts and non-experts might have effect on effective group work, and that is what we need to look into when we search for the desirable group composition in the second part of the research.

Also, participants' competences like communication skills, willingness to listen and learn, and ability to respect others affect participants' type. For example, emphatic leaders have the ability to listen to others, whereas opinionated speakers are too busy to share their opinion. Difference between active and passive respondents can be their personality, but also the difference in their communication skills. Most of the participants are expected to have the willingness to learn, since one of the aims of Organization R's development projects is to share knowledge and learn from others.

In all the three projects, everyone agreed that something had to be done, so there were no complains or resistance against the project. At least in case C1 situation was that organizations need to do their own work to be able to develop their knowledge work. What they do does not depend on others, but others can help them with their ideas and knowledge. Therefore, no one really needed to create mistrust towards others. Nonetheless, the engagement of the group towards the project seemed to vary on how the discussions are led. Preliminary findings indicate that having opinionated speakers who dominate the group and fill the room might have an adverse effect on collective engagement and participation in the discussion.

Overall the five types of participants found from workshops for case project C1 are opinionated speakers, empathetic leaders, active respondents, passive respondents and listeners. These types in some way or in other words can be found from the other team composition studies, but there is difference between our types and types in the existing studies. For example, the Myers-Briggs Indicators: extroverts and introverts, sensing and intuition, thinking and feeling, judging and perceiving (Bradley and Hebert, 1997 and Chen and Lin, 2004) and Morgeson et al.'s (2005) conscientiousness, extraversion, agreeableness and emotional stability are more personality types than our five types. Our types are more than just personality types, since a person's type can change depending on the situation. Preliminary findings from C2 and C3 seem to validate these conclusions, but a detailed analysis of case projects C2 and C3 is still to be done.

Now that we have validated the hypothesis that the participants in a development project workshop can be clustered into types, what does it imply? First, based on the literature as well as the findings in this paper, it is evident that personality of individuals, they competences and knowledge affect group work, but it is not merely about these but also the context in which a person interacts with the rest of the group. From that point of view, it would be interesting to understand which types of people and their behaviour changes according to group composition, and which of them remain the same despite the changes around them. Also, not just what is leader's role, but also what is facilitator's role in all this, and how does number of participants in a group affect their behaviour.

In addition, once we know the types of participants, we can start looking at successful and non-successful workshops and projects, and the composition of those workshops in terms of the distribution of different types of people. That will lead us to understand what combination of different types of people is desirable and which combination is likely to lead to more effective working and a better outcome. Preliminary observations already indicate that there is connection between participants' behaviour, effective workshops, and better workshop outcomes. Types alone may not suffice for

facilitation, and based on the understanding of types of participants, we may need rules for engagement and guidelines for how to form effective groups to get the work done, reduce waste, add value for the end-user and make change happen.

Furthermore, the people in the workshops are typically participating on behalf of a company they represent. As also seen in this research, their position within their own company also affects how they engage in this inter-organizational group work. Therefore, it is also reasonable to conjecture that the group dynamics observed in these workshops is not merely limited to the perception of personalities, but also of the companies they represent, and what position they hold within their own companies. For example, some companies are well-established than others and within a business ecosystem the power dynamics are in play. How does that affect the interaction between their representatives? If the facilitators as well as the companies have a better understanding of this dynamic interplay of the personality of the workshop participants and the perception of the companies they represent, how can they use this understanding to choose the right people to get the most out of these workshops and the development project? There needs to be a support structure that allows such decision making, and this research takes the first steps towards this objective.

6 CONCLUSIONS

The difference between the other team composition studies and this study is that this paper investigates the types in communal development projects within real estate and construction sector in Finland.

The research findings are based on a case study in Finland involving observations from multiple workshops. The workshop data was collected using videotapes and audiotapes, and the non-verbatim transcripts were methodically analysed using a coding scheme, following the protocol analysis techniques. The research aimed at understanding how the people in the workshop interacted and whether they showed certain types of behaviour. As hypothesized, the participants in the workshop could be clustered into a few discrete types depending on how they interacted and engaged in the discussion. The five types of people observed in these workshops include opinionated speakers, empathetic leaders, active respondents, passive respondents and listeners. Findings can have implications on how workshop participants are chosen and organized to make the development projects effective and successful.

We still need further validation for the generalizability of the findings, but it is expected that the results of this study can be used in wider context, like forming design teams. Design teams normally are composed from different kinds of experts and are more likely to be self-managed. Mostly architect is leading the design team, but the leader can change based on the problem. So engineering design community can benefit from these results, and use them to form more effective design teams.

REFERENCES

Bradley, J., Hebert, F. (1997), "The effect of personality type on team performance", *Journal of Management Development*, 16(5), 337-353.

Bryman, A., Bell, E. (2015), *Business research methods*, 4rd ed. Oxford: Oxford University Press, 389-605.

Buchanan D., Boddy D. (1992), *The Expertise of the change agents*. New York: Prentice Hall, 102-107.

du Chatenier, E., Verstegen, J., Biemans, H., Mulder, M., Omta, O. (2010), "Identification of competencies for professionals in open innovation teams", *R&D Management*, 40(3), 271-280.

Chen, S., Lin, L. (2004), "Modelling Team Member Characteristics for the Formation of a Multifunctional Team in Concurrent Engineering", *IEEE Transactions on Engineering Management*, 51(2), 111-124.

Drucker, P. (2004), "What makes an Effective Executive", *Harvard Business Review*, 6, 58-63

Ford, J., Ford, L. (2009), "Decoding Resistance to Change", *Harvard Business Review*, 4, 99-103.

Gill, R. (2010), "Change management –or change leadership?" *Journal of Change Management*, 3(4), 307-318.

Goleman, D. (1998), "What makes a leader?" *Harvard Business Review*, 1, 82-91.

Govindarajan, V., Gupta, A. (2001), "Building an Effective Global Business Team", *MIT Sloan Management Review*, summer, 63-71

Grint, K. (2005), *Leadership: Limits and possibilities*. New York: Palgrave Macmillan, 1-32

Kets de Vries, M.F.R. (1999), "High-performance teams: Lessons from the pygmies", *Organizational Dynamics*, winter, 66-77.

Kichuk, S., Wiesner, W. (1997), "The Big Five personality factors and team performance: implications for selecting successful product design teams", *Journal of Engineering and Technology Management*, 14, 195-221.

Koskela, L. (2000), *An exploration towards a production theory and its applications to construction*. Technical Research Center of Finland, VTT Publications 408, 100-101.

Kotter, J.P. (1988), *The leadership factor.* New York: The Free press, 16-33.

Kotter, J.P. (1996), *Muutos vaatii johtajuutta.* Rastor, 49-53. [in Finnish]

Kotter, J.P. (1995), "Leading Change: Why Transformation Efforts Fail by J.P. Kotter", *Harvard Business Review*, 73(2), 59-67.

Morgeson, F., Reider, H., Campion, M. (2005), "Selecting individuals in team settings: The importance of social skills, personality characteristics, and teamwork knowledge", *Personnel Psychology,* 58, 583-611.

Parry, K., Bryman A. (2006), *Leadership in organizations.* The Sage Handbook of Organization Studies. 2nd ed. London: Sage Publications Ltd, 447-456.

Ramaswamy V., Gouillart, F. (2010), "Building the Co-Creative Enterprise", *Harvard Business Review*, 10, 100-109.

Silverman, D. (2000), *Doing Qualitative Research: A practical Handbook*. London: Sage, 1-316.

Stoker, J., Looise, J., Fisscher, O., de Jong, R. (2001), "Leadership and Innovation: relations between leadership, individual characteristics and the functioning of R&D teams", *The International Journal of Human Resource Management*, 12(7), 1141-1151.