

How to estimate what participation in third sector activities does for participants

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ITSSOIN

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1. Executive summary

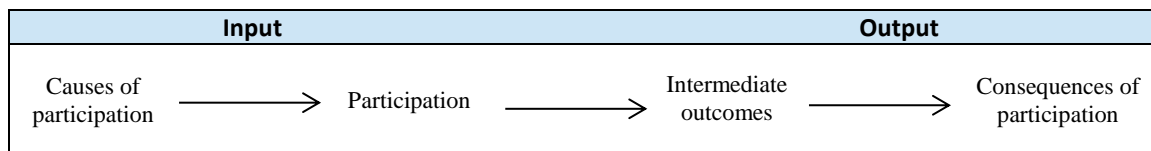
How can the social value and contribution to welfare of volunteering be measured reliably? In this task we focus on the outcomes of participation for participants (micro-level), taking characteristics of organisations (meso-level) and countries (macro-level) into account. We will review the validity and reliability of methods currently used to assess the impact of third sector activities. We conclude with a recommendation on how to estimate this impact. We also discuss the methodological challenges to assess effects of programs and projects of non-profit organisations on social cohesion at the macro-level.

2. The impact of participation on participants

In this paper we describe how the impact of participation in third sector organisations on participants can be measured, and how it is measured in current research. We discuss strengths and weaknesses of available methods and create an outline of how current research is measuring the impact of participation in third sector organisations on participants.

When we describe the impact of participation, what do we mean exactly by the term ‘impact’? In the current paper we take the approach that *impact is the change caused by participation*. Kendall & Knapp (2000) distinguish inputs, outputs, and outcomes of third sector activities. These elements are used in both the Impact of the Third Sector on Social Innovation (ITSSOIN) research (Anheier et al., 2014) as well as in the Third Sector Impact (TSI) research (Simsa, Rauscher, Schober and Moder, 2014). Inputs refer to the resources invested in third sector organisations. Outputs refer to the services and goods produced by third sector organisations. Outcomes refer to the changes that these outputs bring to recipients and other stakeholders. The basic model that underlies this research is displayed in Figure 1.

Figure 1. Basic model of impact of participation on participants



On the input side of participation we distinguish participation itself from its causes. Causes of participation are described in D3.1 of ITSSOIN, which provides a broad survey of factors that help and hinder participation. On the output side we distinguish the consequences of participation and intermediate outcomes that link participation to its consequences.

The model in Figure 1 represents the impact of participation at the individual level of participants. This is a narrow interpretation of ‘impact’.

Due to the diversity of goals of third sector organisations, the performance of the third sector as a whole in reaching these objectives is difficult to measure. There is no consensus on the metrics to be used to determine the inputs, outputs and outcomes of third sector organisations as a whole because they cover multiple dimensions with different meaning and value.

Also it is very difficult to attribute a causal influence to the activity of third sector organisations in reaching these objectives. The attribution problem is that the relevant counterfactual – what would have happened without the activity of the third sector – can rarely be observed. It is often unknown how large the ‘deadweight’ is, i.e. how much change would have happened anyway, without the influence of the third sector. We cannot observe the world without the presence of third sector organizations. This problem is not unique to research on third sector organizations. It is a general challenge for social research. Below we will discuss the key solutions that have been designed in the social sciences to deal with the attribution problem.

As a rule, the measurement and attribution problem get less severe as we move down from the macro-level of societies to the meso-level of organizations and the micro-level of citizens. In the evaluation of the performance of third sector organisations, the inputs, outputs, and outcomes of third sector activities can sometimes be measured for specific programmes and narrowly defined outcomes. However, it is difficult to generalize these measures of impact to other programs for other third sector organizations in other countries. Therefore the current research focuses on the individual level of citizens.

At the individual level of participants, the measures of inputs, outputs and outcomes are fairly clear, and can be measured uniformly across organizations and countries. The input refers to the amount of time and energy invested by participants. The output refers to the services provided and goods produced by participants. The outcome of participation is the change in participants caused by participation. We do not investigate the impact of participation on recipients or other stakeholders.

The basic model of impact at the individual level in Figure 1 displays broad clusters of variables. Following the distinction made in the foundation of ITSSOIN (D1.1, section 3.3, p. 24-29 and section 5, pp. 40-54; D3.1, section 1.2, pp. 5-6) in Figure 2 we have split these broad clusters in three levels: factors at the macro-level of societies, at the meso-level of organisations, and at the micro-level of individual participants.

Figure 2. Three level model of impact of participation on participants

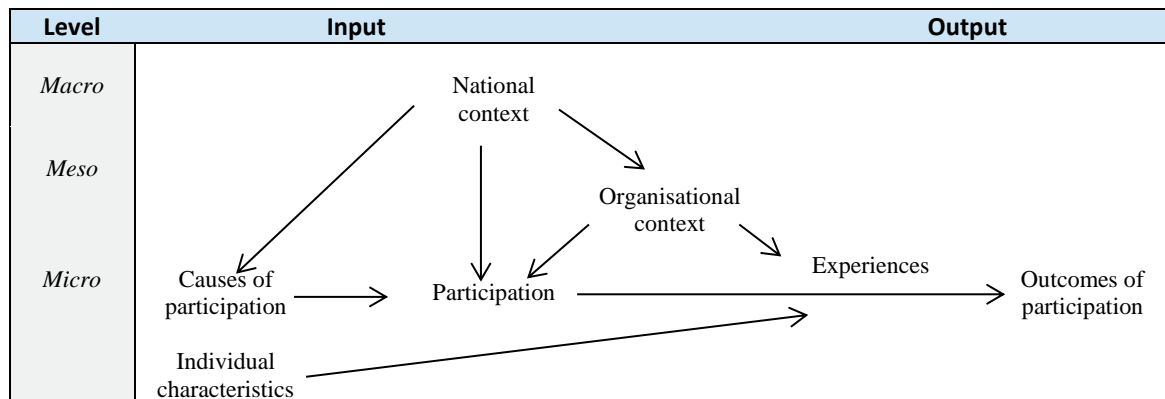
Level	Input		Output	
	<i>Causes of participation</i>	<i>Participation</i>	<i>Intermediate outcomes</i>	<i>Consequences of participation</i>
<i>Macro</i>	National context	'Civic culture'		A better society
<i>Meso</i>	Organisational context	Third sector organisations	Group experiences	Cohesive and innovative organisations
<i>Micro</i>	Individual characteristics	Activity	Individual experiences	Increased welfare of citizens

In the first column of Figure 2 we have displayed causes of participation at three levels. At the highest level of aggregation, the macro-level of nations, characteristics of the national context such as a country's civic culture influence the level and nature of individual participation. At the second level of aggregation, the meso-level of organisations, characteristics of the organisational context, such as the coordination and management practices in third sector organisations, also influence the level and nature of activity of participants. Finally, at the lowest level of aggregation, the micro-level of citizens, characteristics of participants such as their socio-economic position and personality characteristics, shape their activity in third sector organisations.

The intermediate outcomes of volunteering, displayed in the middle of Figure 2, depend on the inputs at all three levels. First and foremost, activities in third sector organisations generate individual experiences among participants. The activity of individual participants shape the group dynamics within their organisation, determining the experiences of other group members as well. The organizational context also influences the individual experiences of volunteers. Matching programs (Stukas, Worth, Clary & Snyder, 2009) tailor the preferences of volunteers with available volunteer opportunities. It is likely that volunteering activities that are carefully matched to the individual preferences of volunteers produce more positive experiences.

Finally, the consequences of volunteering for participants, displayed in the final column of Figure 2, depend on the intermediate outcomes. Positive individual experiences and group experiences contribute to an increased welfare of participants and to more cohesive and innovative organisations. Ultimately, these individual and organisational outcomes contribute to a better society.

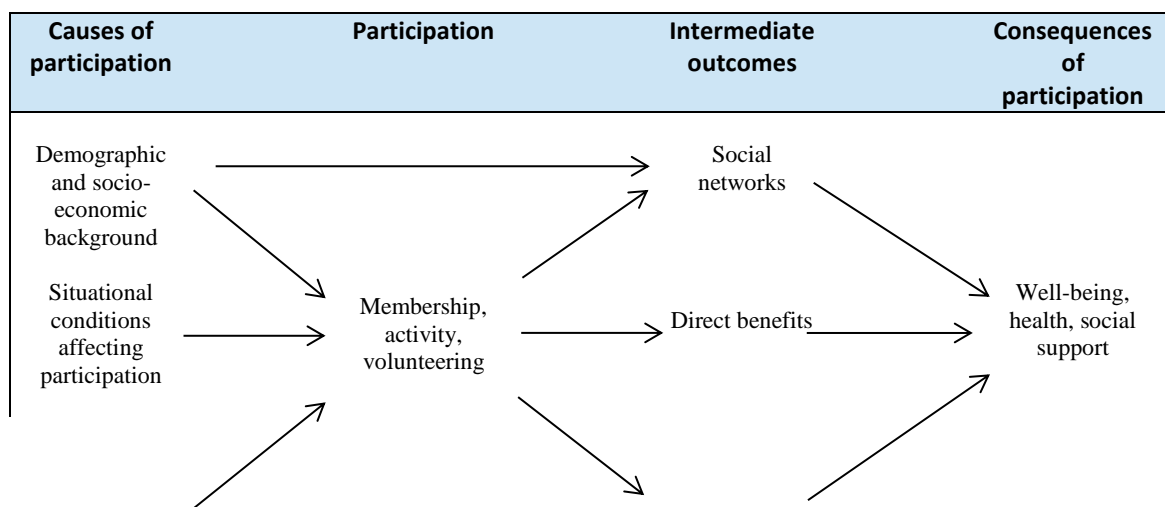
Figure 3. Refined model of impact of participation on participants

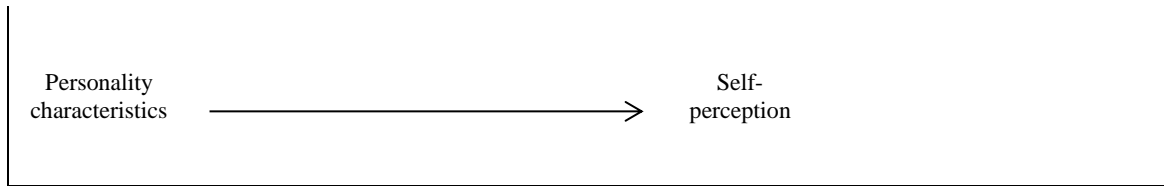


In Figure 3 we have refined the model in Figure 2 by indicating the basic relationships between clusters of factors. The main flow of causal influence is displayed in the middle of Figure 3, running from causes of participation to outcomes of participation. The outcomes of participation are influenced by the experiences of participation. We have added arrows from organisational context and individual characteristics to the arrow from participation to its consequences. These arrows represent the expectation that the influence of participation and the experiences it generates depends on the organisational context and the individual characteristics of participants. In other words: the outcomes of participation vary between organisations and individuals. We have also added arrows from the national context to participation, its causes and the organisational context. These arrows represent the fact that the level and nature of participation and the landscape of third sector organisations differ strongly between countries.

Figure 4 further elaborates the model of impact displayed in Figure 3 by distinguishing several groups of variables at the individual level. To keep the figure readable, the meso-level of organisations and the macro-level of nations have been omitted. Their influence will be discussed in D3.4. Three groups of causes of participation are displayed in the first column of Figure 4: demographic and socio-economic background characteristics of individuals, personality characteristics, and situational conditions affecting participation. As described in the literature review of participation (D3.1, ‘What helps and hinders’), research on participation has typically focused on demographic, socio-economic and personality characteristics of citizens. Much less is known about the situational conditions that are conducive to participation.

Figure 4. Elaborate model of impact of participation on participants at the individual level





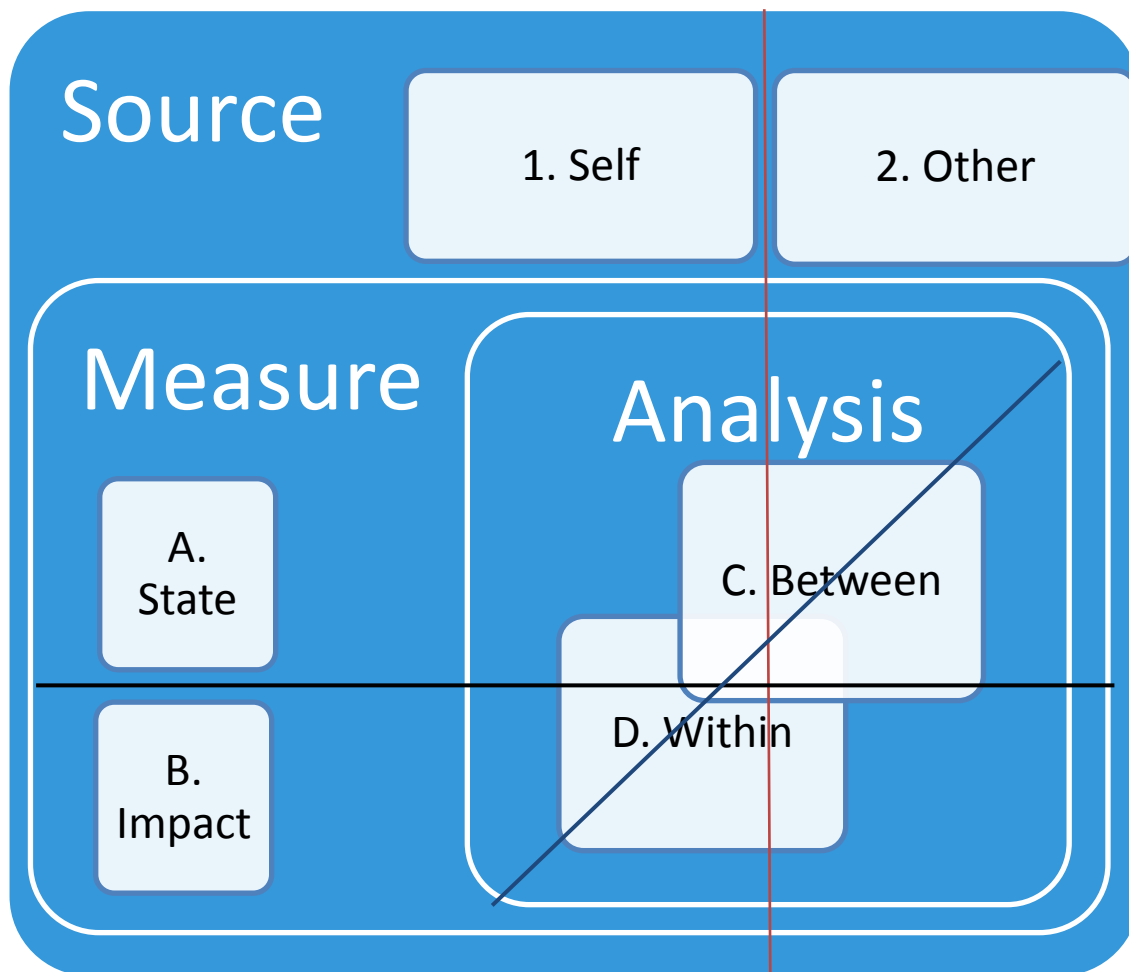
The intermediate outcomes of participation are grouped in three categories: social networks, direct benefits, and self-perception. The direct benefits of participation are those that result from the act of participation itself. The membership services, the activities that third sector organizations organize, and the work done by volunteers satisfy participants practically and emotionally. These benefits are captured by the Volunteer Functions Inventory (Clary et al., 1998). By social networks we mean the contacts with other citizens that are established through participation. Participation also builds strong ties (friendships) as well as weak ties (acquaintances). Activity in third sector organizations enlarges the number of people that participants know and that they can call upon for help. Finally, participation influences the self-perceptions of participants: their sense of mastery, feelings of self-control, attachment and community are enhanced.

Figure 4 also displays three consequences of participation: enhanced well-being, health, and social support received by others. Previous research links activity in third sector organizations to these components of welfare through the intermediate outcomes. Well-being refers to the general evaluation of one's life as good. Better health manifests itself through higher physical and mental functioning. Finally, participation can improve access to social support from others through social networks. In section 5, we provide an overview of previous studies examining the effect of third sector participation on either one of these consequences.

3. Eight methods to estimate the impact of participation on participants

In this section we distinguish eight methods to estimate the impact of participation in third sector activities on participants. The eight methods are graphically displayed in figure 5. We combine three variables, source, measure, and analysis, that each have two values: self – other; state – impact; and between – within. Fully crossing these values with each other we obtain eight combinations, or cells in a three-dimensional space.

Figure 5. Eight methods to estimate the impact of participation on participants



For the source of the measure, displayed on the vertical axis in Figure 5, we have two values: the volunteer herself (self) and something or someone else (other). In the first case the volunteer herself is the source of information about the impact of volunteering. In the latter case, another person (a fellow volunteer, a volunteer coordinator, a spouse, a friend, or another informant) or a document (a test, a registration) is the source of information.

For the measure dimension, displayed on the horizontal axis, we also have two values: whether a change is reported (impact) or not (state). In the first case, the report mentions a change as a result of volunteering. In the latter case, the report mentions the current state of affairs, without mentioning a previous state and without linking the current state to volunteer activity.

Combining these two variables values we obtain four different categories of impact measures.

- I. 1A: A self-report state measure. An example is a volunteer saying: “I am happy”.
- II. 2A: Another report state measure. An example is a spouse of a volunteer saying: “She is happy”.
- III. 1B: A self-report impact measure. An example is a volunteer saying: “I am happy because I volunteer”.
- IV. 2B: Another report impact measure. An example is a spouse of a volunteer saying: “She is happy because she volunteers”.

Finally, the *analysis* of the impact measure, displayed on the diagonal axis, also has two values: whether a comparison is made between volunteers and non-volunteers (between) or within people over time (within). In the first case, volunteers are compared with non-volunteers, and a higher score among volunteers would be regarded as evidence for impact. This is a static analysis. In the latter case, a dynamic analysis reveals whether the scores of people change over time. A stronger increase among volunteers than non-volunteers would count as evidence of impact.

Using each of the four categories of measures of impact listed above two types of analyses can be conducted, depending on the availability and the proper use of multiple measures over time. Arabic numerals are used to classify the eight groups of estimates.

1. 1AC: The first category of estimates is based on a comparison of a self-reported state among volunteers with that state among non-volunteers. An example is an analysis of the average level of happiness among volunteers in comparison with non-volunteers, as reported by these persons themselves.
2. 2AC: The second category of estimates is obtained from a comparison of measures of the state among volunteers and non-volunteers from other sources, such as a peer-report. An example is an analysis of the average level of happiness among volunteers, as reported by others.
3. 1BC: A third category of estimates is based on self-reported measures of impact provided by volunteers themselves.
4. 2BC: A fourth category of estimates is based on measures of impact on volunteers provided by others.
5. 1AD: The fifth category of estimates is based on a comparison of a self-reported state among volunteers and among non-volunteers at two points in time. An example is an analysis of the change in the average level of happiness among volunteers in comparison with non-volunteers, as reported by these persons themselves.
6. 2AD: Estimates in category six are obtained from a dynamic comparison of peer-reports or other measures of the state among volunteers and non-volunteers. An example is an analysis of the change in level of happiness among volunteers, as reported by others.
7. 1BD: A seventh category of estimates is based on a dynamic analysis of self-reported measures of impact provided by volunteers themselves.
8. 2BD: The final category of estimates is based on a dynamic analysis of measures of impact on volunteers provided by others.

The eight groups of estimates distinguished above refer only to the impact of volunteering on volunteers. In the jargon of causal analysis we are talking exclusively about the ‘treatment effect on the treated’. In causal analyses there is another type of treatment effects: the treatment effect on the non-treated. This would be the change among non-volunteers due to the volunteering activity of volunteers. The people helped by volunteers directly and the clients or recipients of services provided by third sector organisations with the help of volunteers profit from volunteering activities as well. In addition there are

likely to be spill-over and other-effects of volunteering. If volunteering increases the well-being of volunteers, and if their well-being has positive effects on their friends, family and others with whom they interact, then the positive consequences of volunteering spread through social networks as if they are ‘infectious’. None of these potentially sizeable indirect effects of volunteering are analysed here.

4. Reliability and validity: the strength of the evidence

What is the quality of the eight types of estimates of the impact of volunteering on volunteers? In theory, we want the estimates of the impact of volunteering to be as accurate as they can be, avoiding both false positives and false negatives. A false positive would be a positive estimate of the impact of volunteering while in fact no such impact has occurred. A false negative, in contrast, would be a failure to find a positive impact while in fact one occurred. The key problem that a thorough research design should solve is the attribution problem: we want to make sure that the estimated impact of volunteering reflects a truly causal influence (Anheier et al., 2014).

What kind of evidence is least likely to result in false positives and false negatives? To answer this question we discuss the possibilities for causal inference in various types of studies (see Figure 6). We start with the strongest type of study that we can think of, displayed at the top of Figure 6. Subsequently, we descend to types of studies that allow for less certainty on causal inference.

Figure 6. Strength of conclusions on causal inference in health research (source: Belluz & Hoffman, 2015)

Experimental	RANDOMIZED-CONTROLLED TRIAL	Randomly selects a group of patients to receive a treatment and another to receive placebo
	QUASI- EXPERIMENT	Non-randomly assigns groups of patients to receive either a treatment or placebo
Observational	COHORT STUDY	Follows a group of people to track risk factors and outcomes over time
	CASE-CONTROL STUDY	Compares histories of a group of people with a condition to a group of people without
	CROSS-SECTIONAL SURVEY	Assesses the prevalence of an outcome in a broad population at one point in time
	CASE REPORTS	Detailed histories of a small number of individual cases

4.1. The ideal design

First we approach the analysis of the impact of volunteering on volunteers as if we are analysing the effects of a new drug among a group of patients. In this analogy the volunteers are the patients to be

treated, and volunteering is their treatment, as if it were a drug: volunteering as ‘vitamin V’. The design of this study is displayed in Table 1.

Table 1. Ideal design of a study measuring the effect of volunteering on volunteers

	Prior	Treatment	Posterior
Control group	X	-	X
Treatment group	X	Vitamin V	X

In a classic Randomised Control Trial (RCT), the treatment is administered to the treatment group purely on the basis of chance. The participants in an RCT have no control over their placement in the control or the treatment group. The Control group provides a measure of the ‘deadweight’: how much change would have happened anyway, without the intervention. However, such a randomisation is very difficult to achieve in a study of volunteering. The intake of vitamin V is voluntary – this freedom of choice is precisely one of the defining features of volunteering. As a result, we do not know how much change would have happened anyway to people who wanted to volunteer but for some reason did not get a chance to volunteer.

Fortunately, its voluntary nature is not unique to volunteering. Many other behaviours that are studied in the social sciences are also voluntarily chosen. Much of the progress in social science methodology in the past decades is concerned with identifying the biases and repairing the problems that make it difficult to attribute causal influence of ‘treatments’ in case there is no randomisation based on chance alone (Shadish, Cook & Campbell, 2004). In the following paragraphs we discuss solutions that have been designed to get closer to causal inferences.

4.2. Analyse change

Powerful repairs to the causal inference problem in the absence of randomisation involve the analysis of change. If we are interested in knowing whether volunteering has positive health effects on people, we need to know how bad they were doing before they took their vitamin V. If volunteers were already doing better before they started volunteering than non-volunteers, we are likely to overestimate the effect of volunteering. In this case we could erroneously attribute the better health after the treatment to the intake of vitamin V.

To avoid this category of false positives, we need a prior measure of the state that we think is affected by the treatment. If such a measure is available, then dynamic estimates of the impact of volunteering allow researchers to look at the changes over time within volunteers, and compare them with the changes within non-volunteers. Of the eight categories distinguished in Figure 5, categories 5 to 8 are dynamic estimates. As a rule, they are to be preferred above estimates of the static type in categories 1 to 4.

In terms of the designs displayed in Figure 6 we have now descended from the RCT at #1 to the quasi-experiment at #2. The defining feature of the quasi-experimental longitudinal study is that it analyses the change between prior and posterior measures among groups of participants exposed to a treatment that is not randomised and compares the change in this group to the change among participants not exposed to a treatment. The cohort study at #3 in Figure 2 is also a longitudinal study but does not compare those exposed to a treatment with those not exposed to the treatment. A cohort study of the impact of volunteering would follow a group of volunteers over time to see how their lives are changing as they continue to volunteer or quit volunteering.

Most of the research that provides dynamic estimates of the impact of participation concern measures of states (category 1AD) rather than measures of impact (1BD). Dynamic analyses of states measured in longitudinal surveys often find that there is not much change to begin with. An example concerns happiness and life satisfaction. Volunteers tend to be happier and more satisfied with their lives than non-volunteers (Giminez-Nadal & Molina, 2015). But the rank order of happiness and life satisfaction do not change much over time: when the same individuals are tracked over time and ranked on life satisfaction twice, the rank order is very similar even when the two surveys are conducted with a considerable

interval. Volunteering, in contrast, does fluctuate quite a bit over time for individual citizens. This basic pattern makes it unlikely that volunteering affects happiness.

A longitudinal design also makes it possible to sort out the chronology of events. In the example of volunteering and happiness, a causal influence of volunteering on happiness implies that a change in volunteering is followed by a change in happiness. Researchers call this process ‘causation’. If citizens start to volunteer, they should become happier and more satisfied with their lives than they were before. When they quit volunteering, we should expect them to become less happy and satisfied. However, it is very well possible that a reverse causal influence is at work. If citizens become happier and more satisfied with their lives, they may become more willing to spend time for others. In contrast, a decline in life satisfaction may lead them to become less willing to volunteer. In these cases, changes in life satisfaction cause people to change their volunteering behaviour. Researchers call this process ‘selection’: people with more life satisfaction are selected into the pool of volunteers, and people with lower levels of life satisfaction are selected out of the pool.

Obviously, both selection and causation processes may be operating at the same time: volunteers may be more satisfied with their lives because they are selected into the pool of volunteers, and once they are volunteering, their higher level of satisfaction may be sustained by positive experiences while volunteering. Longitudinal data allow researchers to disentangle the causation and selection processes.

4.3. Control statistically for confounding factors

If a dynamic analysis is not possible because ‘pretest’ measures are not available, we are left with a more daunting problem. How can we know whether the difference between volunteers and non-volunteers is due to their volunteering activity? Volunteers are different from non-volunteers in many ways: they tend to be more highly educated, older, more religious, more likely to be married, etcetera. Each of these characteristics can also affect the measure we are interested in. If we take the example of happiness again we can assume that people who volunteer are likely to be happier than non-volunteers even if they would not volunteer because they are higher educated, older, more religious, and married. It is important to rule out these so-called confounding factors – factors that are also correlated with happiness – before we assert that it is the volunteering activity of volunteers that makes them happier than non-volunteers.

In the past decades, increasingly sophisticated techniques have been developed to rule out the influence of confounding factors. The most well-known technique is the multiple regression model, that controls statistically for characteristics for which measures are available. A problem with this technique is that characteristics that have not been measured cannot be taken into account.

4.4. Identify conditions that moderate the impact of participation

As our refined model of impact in Figure 3 shows, the impact of participation is likely to depend on organisational context as well as on the characteristics of participants. For practical purposes it is most useful to know which characteristics of third sector organisations and activities are correlated with a stronger (and weaker) impact on participants. However, we should not expect that a change in the organisational context directly results in a different impact because the impact of participation also depends on the characteristics of participants themselves.

4.5. Use multiple measures of impact

In theory, different types of measures of the impact of participation should result in similar estimates. However, self-reports (type 1 in Figure 5) and other reports (type 2) do not necessarily coincide because they both contain biases. Self-reports may suffer from social desirability bias and the desire for post hoc justification. Participants themselves may provide a more positive picture of the benefits of participation when they expect that this will receive praise or recognition by others (social desirability) or when they themselves feel better about such a positive picture (justification).

Other types of reports of the impact of participation, e.g. by evaluations of volunteer managers, clients, or other informants, may partly correct such biases. At the same time, however, other informants may have

only a fragmented and incomplete perception of the full impact of participation on participants. Internal states of participants (i.e., their subjective well-being) may be hard to determine for other people. Physical phenomena, such as measures of blood pressure, heart rates and death lend themselves for objective assessments. Combining multiple measures of impact improves the reliability of the measure.

4.6. Construct measures from multiple indicators

In the estimation of impact, a comparison of multiple measures is more reliable than a comparison of a single measure. Each measure is likely to contain some degree of error. Combining multiple measures is likely to reduce the influence of particular sources of error that are unique to each measure.

5. An assessment of research on the impact of participation on participants

A large and expanding body of research in various disciplines has examined the impact of participation in third sector organisations on participants. What impacts on participation have been examined in this literature? How have the impacts of participation been ascertained? What is the strength of the evidence with respect to causal inference? In this section we give a broad overview of the research published in the scholarly literature (academic journals and books), using the classifications made in the previous section.

Using Google Scholar, we searched the academic research literature using a set of fairly narrowly defined terms. A searching using Effect of volunteering yielded 93,400 results. A specific search for “Effect of volunteering” still yielded 452 results. We investigated the 50 publications that were ranked as most relevant for both searches. In the second search, 26 of the top 50 results had also appeared in the first search. Some of these studies were not concerned with outcomes for individual participants and were disregarded here. We analysed only those studies in which a measure of volunteering activity (yes / no or the number of hours volunteered) as the independent variable and some benefit to the volunteer was measured as the dependent variable. The resulting list consisted of 33 studies. We can consider these studies as the key academic publications on the effects of volunteering on volunteers. They are listed in the reference list with an asterisk (*).

First, we classified the results of our search by identifying the nature of the outcome analysed. We found that most studies on the impact of volunteering (n = 17) concern health outcomes, such as daily functioning, mental health, depression, subjective health, and mortality. The second most common type of outcome studied is subjective well-being (n = 8). Two studies concerned career outcomes such as occupational status and income. One study concerned social relations, and one study investigated multiple outcomes.

5.1. Quality of evidence

Next, we classified the quality of the evidence using the categorization in figure 6. We found only 2 randomised control trials, which enable causal inference. Thirteen studies presented evidence from a quasi-experiment, in which ‘treatment’ (volunteering) was not randomised. Most studies provide evidence from cross-sectional surveys, which have limited possibilities for causal inference. Among the 33 key publications were no cohort studies, case control studies, or case reports.

Table 2 shows a cross-tabulation of the quality of evidence in the studies on various categories of outcomes of participation. We ordered the categories from weak evidence to strong evidence (at the bottom). There were no meta-analyses of health benefits of volunteering. We found three meta-analyses on subjective health, and one meta-analysis covering a large variety of topics. The two randomised control trials measured health and subjective well-being outcomes. Cross-sectional surveys are used in all areas, as are quasi-experiments. Cross-sectional surveys have a slightly stronger presence in studies measuring health outcomes than quasi-experiments.

Table 2. Quality of evidence in studies on the impact of volunteering

	Health	Subjective well-being	Career	Social relations	Various	Total
1. Case reports	--	--	--	--	--	0
2. Cross-sectional survey	9	3	1	1	--	14
3. Case-control study	--	--	--	--	--	0
4. Cohort study	--	--	--	--	--	0
5. Quasi-experiment	7	4	1	--	1	13
6. Randomised control trial	1	1	--	--	--	2
Meta-analysis	--	3	--	--	1	4
Total	17	11	2	1	2	33

5.2. Methods used to estimate impact

Next we classified the methods used to estimate the impact of participation. Each study is classified into only one method. Studies using more than one method are classified in the highest category used. The four meta-analyses are excluded from this table because they cover a variety of research designs.

Table 3. Categories of estimates in studies on the impact of volunteering

	Health	Subjective well-being	Career	Social relations	Various	Total
Static analysis of self-reported state	2	2	1	1	--	6
Static analysis of other report on state	5	1	--	--	--	6
Static analysis of self-reported impact	1	--	--	--	--	1
Static analysis of other report on impact	--	--	--	--	--	0
Dynamic analysis of self-reported state	8	5	1	--	1	15
Dynamic analysis of other report on state	1	--	--	--	--	1
Dynamic analysis of self-reported impact	--	--	--	--	--	0
Dynamic analysis of other report on impact	--	--	--	--	--	0
Total	17	8	2	1	1	29

A majority of the key publications on the impact of volunteering are reporting dynamic analyses of self-reported states (n = 15). An example is the study on volunteering and happiness mentioned earlier (Giminez-Nadal & Molina, 2015). The second and third most common type of estimates are based on static analyses of self-reported states (n = 6) and static analyses of other reports (n = 6). Studies directly measuring the impact of participation are very rare. We found only one study using self-reports of impact. There were no studies estimating impact using other reports.

In Table 3 we cross-tabulated the outcome category with the type of estimates analysed in the studies, using the list of eight categories in figure 5. We ordered the categories from weak evidence to strong evidence (at the bottom). Studies of health outcomes and subjective well-being are dominated by dynamic analyses of self-reported states. Studies on health outcomes sometimes (n = 5) use other reports on states in addition to self-reports.

5.3. Discussion

The field of research on impact of participation on participants is dominated by cross-sectional and quasi-experimental studies. Randomized control trials, which provide the best possibilities for causal inference, were seldom used. Most of the studies were focused on health outcomes and subjective well-being. Studies of social support, social networks, occupational outcomes such as achievement in education, social status and income were rare. This is unfortunate given that volunteering and participation are likely to contribute not only to health outcomes, but also – and perhaps primarily – to social outcomes. According to citizens in Europe, the benefits of volunteering can primarily be found in these areas (Bekkers, & Verkaik, 2015). Citizens in Europe also mention values of solidarity and personal development as key benefits of volunteering. However, we found no studies on social values and personality traits among the key publications. These are clearly the areas in which progress can be made in research on the impact of volunteering on participants.

Another obvious improvement is in the use of dynamic methods to estimate the impact of volunteering on participants. Cross-sectional surveys are still used quite often, although they do not allow for an estimate of the impact of participation on participants.

A third improvement that the field of research on impact needs to make is to measure the impact of participation directly. Current research often involves a comparison of measures of health and well-being taken at different points in time, without an explicit link between these measures and participation.

Finally, most studies use self-reports. While these may be the only valid source of information on subjective well-being, other reports such as peer reports and objective tests can be used to measure health and social outcomes.

6. Conclusion

In this report we have discussed the methods that can be used to estimate the impact of participation on participants. In a future part of ITSSOIN the toolbox that we have presented in this report will be used to estimate the impact of participation on participants.

In sum, the impact can be estimated with reasonably high levels of reliability and validity by using research designs that allow for causal inference and high quality data that involve multiple measures over time. Analyzing change over time within the same set of respondents can show the benefits of volunteering unfold. Also the chronology of events can be mapped. If volunteering affects health, well-being, and social relationships, changes in volunteering should be followed by changes in these consequences of participation.

We found that the key publications in the field of research on impact of participation include only a few studies on outcomes other than health and subjective well-being. This is surprising, given that citizens perceive the key benefits of volunteering to be primarily in the social sphere: on values of solidarity, personal development and social relations. Future research on the impact of participation on participants should be focused on these areas.

The field of research on the impact of participation on participants is dominated by cross-sectional and quasi-experimental studies. Randomized control trials, which provide the best way to estimate the impact of participation, are rare. Most of the key publications in the field use dynamic analyses of self-reported states. While this is the only feasible option to estimate the impact on subjective well-being, we recommend that other reports and direct assessment of impact be used as much as possible for objective outcomes in the areas of health and social relations.

Our recommendations for research on the impact of participation on participants are the following: (1) conduct randomised control trials whenever possible; (2) analyse change in prospective longitudinal research designs, disentangling selection and causation; (3) control statistically for confounding factors; (4) identify the conditions that moderate the impact of participation; (5) use multiple measures of impact; (6) construct measures from multiple indicators. Following these guidelines allows for the best estimates of the impact of participation on participants possible.

7. References

*References marked with an asterisk * have been examined in the assessment in section 5*

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