Bachelor Thesis Supporter van Elkaar – evaluatie van een maatschappelijk initiatief

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Summary:

The aim of this research is to evaluate (a part of) the “Supporter van Elkaar-project” (SVE), which is aimed at strengthening the Non-cognitive Personal Competences (NCPCs) of vulnerable citizens in Enschede. Our research-question therefore is: "To what extent does participation of vulnerable citizens in the ‘Supporter van Elkaar’ community-initiative of FC Twente, help these citizens to improve their Non-cognitive personal competences? In this evaluation-study (Pedersen, Nielsen and Kines, 2012) we will use an interrupted-time series design based on a pre-test and a post-test (without control-group). We compare data about personal competences of project-participants at two moments: before and after they started to participate in the SVE-project. Moreover, we will also determine to what extent citizens actively participated in the project. Furthermore, we will analyse how different interaction styles of professionals might affect the development of the personal competences of the project-participants. The information on the interaction styles will be gathered via interviews with the professionals of SVE, and via a survey for the professionals. In this way we can evaluate what the effects are of the intensity of SVE-participation on the development of participant’ personal competences. The survey-data used were collected before this bachelor-thesis started. The members of the families involved in the SVE-project filled in short surveys.

So far most research on strengthening social competencies focussed on the role of professional social workers in the context of a government programme. This study is relevant because it explores the potential of a community-initiative (like SVE) in developing such personal competencies.

Introduction:

Football club Twente has started a project with the aim to help vulnerable Enschede citizens, named “Supporter van Elkaar” (SVE). The participants of this project engage in group and individual activities under the guidance of professionals. However, also non-professional volunteers, football players, and students have an important role in these activities: they might guide these activities, or they might participate in these activities to encourage the other

participants. The goal of these activities is to empower the participants with regard to their cognitive capabilities, their non-cognitive capabilities, or their health.

The question is to what extent the SVE-project succeeds in its aim to strengthen the non-cognitive capabilities of vulnerable citizens and how the effectiveness of this project can be (further) improved. One of the aims of the SVE-project is to improve the personal capabilities, and more specifically the non-cognitive capabilities of the participating vulnerable citizens. Doing research on the SVE-project will provide us with new knowledge on this. This is not only relevant for the project itself, but also more generally, as the WRR (2018), the Dutch Scientific Council for Government Policy, in a recent report has emphasized that non-cognitive capabilities are important for the sake of self-reliance of vulnerable citizens. Examples of such non-cognitive capabilities, or as the WRR calls it 'do-power', are "the ability to set a goal and to make a plan, the ability to take action, the ability to persist, and the ability to cope with temptations and setbacks" (WRR, 2018, p. 1). For cognitive capabilities it is generally assumed that these, to a large extent, can be trained by education. However, for non-cognitive capabilities or do-powers it is still questioned whether and how professionals (or non-professional providers of social care) can do something to train these capabilities with people.

There are a few exceptions. Hand (2018, p. 1148), for example, made an effort to observe how professional social-workers in reality do make efforts to train non-cognitive capabilities of people, and then in particular the abilities to set a goal, make a plan, and take action. In her study Hand (2018) observed professionals that were helping young mothers who experienced problems with the nutrition of their children, leading to health issues. After observing different professionals, Hand (2018) noted that they were all applying a shared method of interaction with the mothers. This shared method consisted of three principles, namely the creation of a pleasant and respectful environment, the avoidance of judgement of the participant's previous actions, which allows the participants to 'save face', and an emphasis on trust building between the professional and the client. These three principles, together with the education component of the project, are in line with the project's goal to foster the self-efficacy and the autonomy of the project's participants.

Whereas Hand (2018) describes how professionals in a concrete case go about influencing the behaviour of citizens to reach the desired goal in a project, Van Parys & Struyven (2018) discuss more generally what different interaction-styles professionals may apply. According to them, a difference in interaction styles between professionals may lead to different outcomes with regard to the motivation, and behaviour of citizens (Van Parys & Struyven, 2018, p. 1702-1703). What Van Parys & Struyven (2018, p. 1711 & p. 1716) address particularly is a pair of, supposedly opposing, street-level bureaucrat (SLB) interaction style dimensions, namely the support of participant's autonomy vs the control of participants. What Van Parys & Struyven (2018, p. 1716) eventually observed, is that these dimensions are not opposing, they may actually be compatible, and lead to the programme's intended outcome if they are applied adequately by SLBs.

The studies of Hand (2018) and Van Parys & Struyven (2018) began to explore the interactions between *professionals* and citizens in programs aiming at strengthening non-cognitive capabilities. Even less is known about what *non-professional providers of social care* can do to strengthen non-cognitive capabilities. Our research wants to focus on this latter issue. This possible contribution to the literature is highly relevant in the Dutch debate. In this debate a key issue is whether professional care should be transferred to informal social networks that are 'closer' to the people that are in need of care. In such networks non-professionals such as family, friends or people from the neighbourhood replace, or partly take over, the care that was previously provided by professionals. This change is discussed by Bredewold et al. (2018). These authors question whether non-professional networks will be able to provide this care. Against this backdrop our research is highly socially relevant as we study a community-initiative (CI) in which care is provided by non-professionals close to the care-recipients. It will become clear as a result what the advantages and limitations are of using CIs for this purpose.

Main research question and sub-questions:

As already mentioned, the *main research question* will be:
"To what extent does participation of vulnerable citizens in the 'Supporter van Elkaar' community-initiative of FC Twente, help these citizens to improve their personal competences?" This is an explanatory empirical research question.

Furthermore, there are five sub questions related to the main research question, and these sub-questions were formulated with the intention to gradually guide the research to a final answer on the research question.

1. "What are the main objectives and activities of SVE?" This is a descriptive research sub-question.

2. "To what extent did the non-cognitive personal competences of the respondents develop over time? (From the start of the project till the end)." This is also a descriptive research sub-question.

3. "How actively were participants engaged in the project (3a) and how did they interact with the paid officials (3b)?" This is, again, a descriptive research sub-question.

4. "What is the effect of participant's engagement (4a) and of the interactions with paid officials (4b) on NCPC development?" This is an explanatory research question.

Theory/concepts:

Co-production: Interactions between paid-officials and individual citizens & interactions between paid-officials and groups of citizens

The interactions in traditional projects that aim to develop the competences of individuals, work mostly on an individual-to-individual basis; there is no group interaction, a professional interacts with one individual at a time. In the SVE-project the citizen participants do not exclusively interact with professionals: other SVE participants, volunteers, students, soccer players, or people who did not follow a social-care, or sports related education might also engage in interactions with the participants. Whereas there are people engaged in the SVE-project that might be considered professionals as they have followed social-care education and/or sports education, and thus have experience in the social domain, the SVE staff does not exclusively consist of these people. Therefore, in this bachelor thesis we will mostly refer to those people who engage in interactions with the SVE participants, as 'paid officials'. Furthermore, is it important to realise that the SVE-project consists of interactions between paid officials and groups of citizens, and interactions between paid officials and individual citizens. The literature of co-production can provide us with relevant information about both of these interactions. The concept of co-production has not a clear-cut definition, however. Some of its basic elements are

that one or several professionals of an organization "work together with a (group of) individuals, in which the individuals are expected to make an active and direct contribution to the goal of the organization" (Brandsen & Honingh, 2016). The SVE-project clearly shares some of the elements of a co-production; SVE has as one of its goal the development of its participants, and to reach this goal the participants are expected to make an active effort in its activities. The fact that Brandsen & Honingh (2016) emphasize professionals is in the case of SVE irrelevant, because as mentioned before, the research in this bachelor thesis furthermore aims to figure out to what extent a staff of paid officials, volunteers and peers are capable of taking the role of the professional. In the case of SVE do citizens that are part of the project staff, work as a substitute for the professional. Löffler (2009) mentions some other useful elements of co-production which complement the definition by Brandsen & Honingh (2016), and further clarify how SVE can be understood as co-production. Löffler (2009, p. 5) mentions that in co-production the relationship between staff and service users may be collaborative instead of non-cooperative, and that the co-production can be additive *or* substitutive.

'Non-cooperation' can be used to describe the interaction style of a professional, paid official or volunteer. It means that a professional holds the opinion that he/she *knows* the best what the interaction with the participant should look like, and therefore should also *decide* on what the interaction with the participant will look like. This means that a non-cooperative professional does not involve the participant and its ideas and opinions in the interaction (Coulter, 1999, p. 719). However, this does not mean that non-cooperation is per definition, normatively bad, as the professional's intentions or reasons for interacting non-cooperative can be well-intended. For instance, a professional might want to take an approach, or want to strive for a certain goal that the participant initially will dislike, but that in the end will benefit the participant greatly, while the participant does not initially realise that. However, one could make a case that a professional who follows the non-cooperative approach is acting irresponsible when he/she is completely indifferent to the ideas and concerns of the participant, as they might actually be helpful or well-grounded. Furthermore, a non-cooperative attitude might not contribute to a sustainable solution if the views and concerns of the participant are ignored.

A collaborative (or partnership) interaction style is, in its extreme form, the opposite of a non-cooperative interaction style. A professional that follows the collaborative approach, works

together with the participant to formulate, but also to achieve, the goal of the co-production. This means that in such an interaction the professional does not disregard or ignore the input of the participant; instead the professional recognizes the skills and competencies of the participant, and considers how these can be used effectively to reach the goal (Coulter, 1999, p. 719). The interaction is non-hierarchical. This implies that the professional and the participant engage together in decision-making, and that they together bear the responsibility for the co-production (Coulter, 1999, p. 719).

It has to be noted, however, that whereas the collaborative interaction style and the non - cooperative interaction style might be the opposite of each other in their extreme form, they may not always appear in their extreme form in reality. Some of the elements of a professional's interaction style could be characterized as collaborative, whereas others elements of the interaction style could be more characterized as non-cooperative. Imagine the following co-productive interaction: a professional might choose to consult the participant and ask him to give his ideas about what the co-production should look like (a collaborative characteristic), whereas in the end the decision on what the co-production is going to look like, might be up to the professional (a non-cooperative characteristic). In the case of such a co-productive interaction it is not really appropriate to characterize the role of the professional as collaborative *or* non-cooperative; it makes more sense to characterize his interaction approach as *in-between* collaborative and non-cooperative. Information from an interview with the professionals and other sources that give information about the SVE-project, such as the project documentary and the project policy papers might give a broader and deeper understanding of the nature of the interactions between the professionals and volunteers in the SVE-project on the one hand, and the participants on the other hand. Hence, an analysis of these interactions will follow in the analysis part of this bachelor thesis.

Furthermore, Löffler (2009, p. 5-6) mentions, that the activities and goals of a co-production can be distinguished on the basis of the *intention* of their activities and goals; they can be either **additive** or **substitutive**. Those activities that are carried out together by co-producers (non-governmental actors and governmental actors together, business actors & citizens together, etc.) and that aim to replace, activities or services that were previously provided *solely* by local government actors can be called substitutive. The intention here is to substitute a form of

governmental service provision, with a new form of service provision that is carried out by co-producers. However, co-production activities can be called additive if the intention of those activities is to *add* a new input of the co-producers to the already existing activities or service provision. Think here of co-producers such as non-governmental community actors and governmental actors *or* business actors & citizens, etc.) who might want to add extra services to the already existing activities or service provision of the government. However, the introduction of professional support to individual self-help, or to community-initiatives can also be called a form of additive co-production (Löffler, 2009, p. 5).

From what was discussed above, it has become clear that co-production, due to its nature, differs from regular professional-to-individual interactions. This has, firstly, to do with the fact that participants in co-production have to take a collaborative role, rather than a passive role with a paternalistic professional that sets out what the participant (citizen) has to do. Second, whereas in interactions between a professional and an individual there is usually only an emphasis on the goal(s) of the individual, such as the development of the individual's competences, interactions between professionals and groups of citizens may consist of an additional dimension or goal, namely the shared goal of the group of citizens. These two examples of co-production are illustrative for two different forms of co-production that may be engaged in at the same time or separately, namely Personal co-production and Collective or Community co-production. With Personal co-production the goal of the co-production can be achieved through activities of the individual alone, however, the individual is in its activities still receiving support or help from a professional (Löffler, 2009, p. 8). An example of this Personal co-production in the SVE-project is a young man who receives support from a sports coach to start with playing shot-put. The sports coach takes note of the youngster's abilities, encourages him to start with a sport that matches these abilities, and by performing in the sport and receiving some support of the coach, the young man is finally able to increase his self-confidence by himself (SVE, 2019). In collective co-production, a group of citizens is required to work together in activities or services to reach a goal (Griffiths & Foley, 2009). Here an example from the SVE-project would be that neighbourhood residents together took the initiative to participate in a local walking event, with (amongst others aims) the aim to increase the social cohesion in the neighbourhood. However, even while people may take part in collective co-production to realise a collective goal, the process that the people engage in to achieve the collective goal might also, as a side effect, lead

to development of personal competences. For instance, by taking part in the walking event, the people from the neighbourhood do not only attain the collective goal of social cohesion, they will also attain the personal benefit of a better health through walking. From these examples it is shown that some co-production projects may consist of both Personal co-production and Collective co-production activities, and that they may lead to both the achievement of personal and collective goals (Löffler, 2009, p. 8).

Co-production, or similar efforts are often criticized, however, for only benefiting a small proportion of the community that it intends to reach out to, or that some people disproportionally benefit from them (Vanleene, 2018, p. 202). Taking into account the usual critics on co-production, Vanleene et al. (2018) analyze two community co-production projects, and argue that there is a role for professionals to ensure that co-production is 'fair', meaning that it needs to be **inclusive**, the people who are affected by the decisions in the co-production must be somehow heard, or involved in the co-production. It also more generally means that the citizens engaging in the co-production do accurately reflect the population that the co-production intends to reach out to (representation). Furthermore, the co-production must be **equal** for the co-producers in terms of dangers and benefits, and finally the co-producers need to be **empowered** in the sense that they need to *feel* able to express their viewpoint, and that they actually can, or are allowed to influence the discussion/co-production (Vanleen, 2018, p. 203).

To ensure the inclusiveness, equality and empowering of the citizens or other actors in the co-production, Vanleene (2019, p. 203) argues, that professionals need to perform in three activities (asking, enabling and responding): they need to **ask** the citizens whether they are willing to engage in the co-production while presenting them with information about the project. By showing the citizens why the co-production is important for them, more citizens might become motivated to engage in it. However, it also important that professionals make sure that the citizens will be able to comprehend the information about the project, and what it entails, by presenting the information in a for them understandable way, and by teaching (**enabling**) them how they could engage, for instance by making use of their social capital. In this way the co-production becomes more accessible to them. Professionals have another important role in that they have to be **responsive** to those aspects that citizens consider as of primary importance, or attach relatively high salience to. This is important to maximize the participation of citizens, it

incentives their engagement. Furthermore, it is important to realize that professionals may (sometimes subconsciously) exclude some people in the co-production by shaping it in a manner that they are most familiar, or comfortable with. People who are relatively open for engagement in co-production are easier involved in a project, than people who hold a negative, or skeptical attitude to it.

The usual critiques on co-production projects, such as that it only benefits a small proportion of the community that it intends to reach out, or that some people disproportionately benefit from them, might also be applicable to SVE: for instance, participants are selected in a way that resembles snowball sampling; participants can bring in other participants by encouraging their acquaintances to join. An example from SVE is a female participant who told her sister about the project, after which the sister joined. Furthermore, from a first glance at the participants it is clearly visible that mostly women are participating in the project. These observations, can mean that there might be issues with the inclusiveness in SVE, this will be discussed later in the data/case selection-sampling section when the data on the participants is presented. Inequality in terms of dangers and benefits seems to be not so much of a problem in SVE as well, as the project aims to give all the participants the chance to work on their competences. Whether the project actually succeeds in this goal can only be said something meaningful about after the data analysis, hence, this topic will be discussed in that section. Empowerment, in terms of developing the non-cognitive capabilities of citizens is the topic of this bachelor thesis and Vanleene et al. (2016) provide us with some useful real-world examples on how professionals engage in the empowerment of citizens, and give examples of problems that they encountered with the empowerment of citizens. Just like Hand (2018), Vanleene et al. (2018, p. 209) mention that it is important that professionals balance between their role of 'friend' and 'leader', to respect the autonomy of the co-producing citizens. When the professional makes the decisions in the co-production all the time, citizens might experience it as if they are impeded by the professional in their development/empowerment efforts, Vanleene et al (2018, p. 209) mention. However, in their case they find that when the professional did intervene less in the decision-making, that the disagreement between the citizens in the community co-production would grow. Hence, it is important that professionals balance their roles, to respect the citizen's autonomy, while at the same time trying to ensure that the community attains it common goal.

Furthermore, De Graaf (2015, p. 48) mentions by referring to participatory democratic theory, that by the very act of taking part in a participatory process, citizens can develop skills "civic skills" or more "competence in public decision-making". One could argue that in community co-production projects citizens might not per definition engage in public decision-making, however, in co-production people are required to engage in a similar process; they have to discuss what they want to achieve in the co-production and how they want to achieve that, and after citizens have come up with this, they have to engage in the actual decision-making with one another. This could mean that the process of co-production might also help to develop non-cognitive competences. Such a process might especially take place in the case of the aforementioned collective co-production, where citizens together have to make an effort to achieve a common goal.

Interactions between individuals and professionals

In the section above, the concept of co-production has been discussed elaborately. Co-production, however, is a relatively new concept. Traditionally, would most interactions between citizens and professionals take place on an individual-to-individual basis, in the earlier mentioned non-cooperative way (Coulter, 1999, p. 719). The co-production literature, however, showed examples of interactions that differ from those individual-to-individual and non-cooperative interactions, such as collective co-production in which a group of individuals is expected to interact with a professional in a collaborative manner. While these collective co-productive interactions can be observed in reality, there do also still exist many examples in which individual professionals do interact with individual citizens. In the next section it will be extensively clarified what NCPCs are. The section after that will focus on individual-to-individual interactions, and it will give examples of what presumably can be done by not only professionals to develop the NCPCs of individuals.

What are Non-Cognitive Personal Competences? (NCPCs)

This thesis is about what can be done to strengthen the non-cognitive capabilities of citizens. One could therefore argue that the approach that we take is very similar to the approach that scientists from the medical field take; namely the salutogenic approach, as opposed to the pathogenesis approach. With a pathogenesis approach one tries to find out what causes a disease, whereas with

a salutogenic approach scientists aim to find out how a state of positive health can be generated (Koelen & Lindström, 2005, p. s11). The use of salutogenic theory is merely instrumental to help the participants of the project in addressing situations or experiences that are perceived by themselves, or society, as problematic. The fact is that the people who, whether or not voluntarily, participate in the SVE project, often encounter one or multiple problems in relation to physical health, mental health, or unemployment, including non-cognitive capabilities. The SVE project serves as an instrument to address those problems of the participants in a respectful and cooperative way, as will be further discussed later.

In this section we first of all focus on the meaning of the concept of non-cognitive capabilities. The WRR's conceptualization of 'non-cognitive capabilities', is similar to what Antonovsky in his salutogenic approach calls 'Sense of Coherence' (SOC) (as cited in Koelen & Lindström, 2005, p. s11). Sense of Coherence describes a person's strong and stable confidence in his capabilities to manage his/her skills and resources in such a way, that it enables him/her to effectively cope with life challenges (Koelen & Lindström, 2005, p. s11). Sense of Coherence also pertains to an individual's environment; an individual with a Sense of Coherence has also a strong belief that the environment is responsive to his/her skills and resources.

The idea is that people may possess knowledge skills, such as the ability to learn and remember knowledge, the possession of knowledge (the cognitive capabilities), and resources such as a network of people around them that is willing to help them, and money, but that this does not guarantee that they are able to manage their knowledge and resources in such a way that it enables them to effectively cope with life and its challenges (Koelen & Lindström, 2005, p. s11). These skills and resources are "biological, material and psychosocial factors" (Koelen & Lindström, 2005, p. s11) and Antonovsky (1979; 1989) calls them the General Resistance Resources (GRR).

However, one should not approach Antonovsky's salutogenic approach, consisting of SOC and GRR, as principles that describe a static, unchangeable reality: they are dynamic, they interact with each other and may change over time. Therefore, it describes a process, and this process is called 'individual empowerment' (Koelen & Lindström, 2005, p. s11). This process consists of three elements: 1. People aim to gain *control* over their lives. 2. They come to experience what their goals are, and how they can be reached. 3. People learn to see that there is a causal

relationship between their actions, and the outcomes of these actions (Koelen & Lindström, 2005, p. s12).

Via this process of empowerment, it is expected that individuals might also be able to develop non-cognitive capabilities. The concept of self-efficacy is related to the third element of the empowerment process. Self-efficacy consists of an internal and an external component. Zimmerman & Rappaport (1988, p. 729) describe the concept of efficacy in the context of politics (political efficacy), in which individuals make an assessment of their own abilities to engage in political activities. Internal and external efficacy, however, can also be used in other contexts to describe an individual's self-efficacy. Therefore, in this bachelor thesis, we interpret Internal self-efficacy as an individual's belief that he or she, has the capabilities that are necessary to perform in something, for instance, in life or in activities. It is the belief in one's own capacities, whether they be cognitive or non-cognitive (Zimmerman & Rappaport, 1988, p. 729). External efficacy is interpreted here as the extent to which a person has the belief that the environment is responsive to him and his actions/capabilities (Zimmerman & Rappaport, 1988, p. 729). In our thesis we will build on this literature, and it will become clear that the SVE project also shares elements of an empowerment process.

As just explained, self-efficacy consists of two facets that describe an individual's mental state; internal efficacy and external efficacy. Obviously, different individuals may possess different 'levels' of internal- and external efficacy, and these different levels of self-efficacy are supposed to affect the empowerment of individuals. In our research question we also ask what can be done to improve the non-cognitive capabilities of vulnerable citizens.

There are a number of concepts which describe the levels of internal and external efficacy of an individual. Some of these concepts hold that an individual's internal and/or external efficacy are innate, and therefore difficult to be changed by professionals. Other concepts, however, hold that an individual's internal and external efficacy are formed by experiences, and therefore *are* possible to be changed by a professional if an individual receives help.

'*Locus of control'* (Rotter, 1966; Koelen & Lindström, 2005, p. s12) is one of these concepts and relates to both internal efficacy and external efficacy: if a person has an *internal* locus of control, this means that he/she believes that the things that happen to him (outcomes), are a result of his/her own actions, and therefore that the environment is responsive to his/her actions. As a

consequence, one can conclude that individuals with an internal locus of control have a relatively high internal efficacy and relatively high external efficacy. However, if a person believes that outcomes are always a result of external forces, such as other people's actions, and the individual's actions do not play a role in outcomes, then this person can be typified as having an *external* locus of control. Hence, those people have a low internal efficacy and a low external efficacy; they do not believe that their own capabilities and/or resources are sufficient to engage effectively in life, and furthermore do not expect that the environment and the people in it are responsive to his/her capabilities and/or resources. Locus of control is considered to be a *personality trait*, and therefore hard to change.

Learned helplessness is another concept that describes self-efficacy, and is not considered to be a personality trait, but a *state* of an individual's mind that can be changed. People can end up in a state of learned helplessness, as Koelen & Lindström (2005, p. s12) call it "a general lowered state of functioning", from having experienced situations in which they perceived to be not in control. The example that Koelen & Lindström (2005, p. s12) give, is that of a person who tried to lose weight, but did not succeed, due to him or her not acting in accordance with the diet as a result of a lack in persistence. Due to this experience of a lack of persistence, the person might in the future decide to not engage in a diet again, and he or she therefore ends up in a state of learned helplessness. However, learned helplessness can also be an effect of external factors, again here the example of a person following a diet is used for illustration: this time the person *is* persistent in following the diet, however, the diet that was ascribed to the person did not work, because the person's dietician ascribed an ineffective diet. Presumably, if the dietician had ascribed an effective diet, and the person would have persisted in the diet, then the person would have lost weight. This experience in which the person did its best to keep up with the diet, but did not succeed due to a mistake of an external factor (the dietician), makes the person end up in a state of learned helplessness; the person feels like he/she is not in control of the situation due to the acts of actors external to him/herself. This time around the goal of losing weight was not attained, due to reasons that are *external* to the person following the diet; the person did it's best to keep up with diet, and if there had been ascribed a diet (treatment) that had been effective, then the person would have lost weight. Therefore, in the first situation the learned helplessness is caused by a lack in internal efficacy, and in the second situation the learned helplessness is created by a lack of external efficacy.

A third concept by Bandura (as cited in Koelen & Lindström, 2005, p. s12), called *outcome expectations*, or also called *response efficacy by* Rogers (as cited in Koelen & Lindström, 2005, p. s12) describes "a person's estimate that a certain behaviour will indeed lead to the expected outcome" (Bandura, 1977). Outcome expectations or response efficacy do not necessarily relate to an individual's efficacy, they are more about the trust that an individual has in the effectiveness of a treatment, or action. Furthermore, as opposed to *Learned helplessness*, outcome expectations are not necessarily based on direct personal experiences. Instead, they may for instance be based on the individual's prejudices, or the expressions from peers in the environment. To take again the example of a diet; an individual may have heard from his or her friends that a certain diet does not work, and therefore hold a negative attitude towards the diet, while in fact the diet *is* effective. This is the example where an individual's peers hold a negative attitude towards a certain behaviour. Another example is that an individual may hold a habit to eat unhealthy foods, as he or she has been doing this for their whole life. Hence, the person may not really believe or expect that making the switch to healthy food in fact increases their health. That is the example of prejudice to a certain behaviour or action; the individual is not convinced of the effectiveness of the new behaviour.

To summarize, Koelen & Lindström (2005, p. s13) argue that *learned helplessness*, *outcome expectations*, *internal efficacy* and *external efficacy* are all concepts that describe an individual's mental state, which can be controlled, or altered. However, these concepts may differ with regard to how static or changeable the mental state is that they describe. For instance, for a professional it might be easier to change the beliefs of an individual that holds a negative outcome expectation, by just showing him that his believe is simply not true (negative outcome expectation), than as if a professional had to address the learned helplessness of an individual, which is more of a structural or static problem (Sutton 1982; Koelen & Lindström, 2005, p. s13). However, the behaviour of people with an *external locus of control*, so people that believe that the environment and their lives cannot really be controlled by their own actions, may be far harder to be controlled by professionals, as those people's behaviour is said to be determined by their innate nature, or personality.

How can the NCPCs of individuals be influenced?

As was just mentioned, professionals can try to change the outcome expectation of individuals; they can do this by showing that the advised behaviour is in fact effective (Sutton, 1982). In this way professionals try to improve the knowledge of a person, which is a cognitive competence. Furthermore, it has become clear that learned helplessness and locus of control can be far more difficult to be influenced by professionals, as they explain the state of an individual's mind as being related to its self-efficacy, which is a NCPC. However, this does not mean that nothing can be done by professionals to address the attitude of individuals that are characterized by those concepts (Koelen & Lindström, 2005, p. s13). Koelen & Lindström (2005, p. s13) give the example of reattribution programmes, that have the aim to help people regain "confidence and feelings of control". In such programmes, professionals often guide the participants by encouraging them to make small, incremental steps that are easy to reach, in order to finally realise their overarching goal, for instance losing weight (Koelen & Lindström, 2005, p. s13). It is easier, and more realistic for a person to lose 30kg in steps of 5kg, while taking the time, than to force an individual to lose 30kg in a short amount of time, with an additional great risk of the person failing this task, and becoming discouraged with its own capacities (Koelen & Lindström, 2005, p. s13). By letting individuals experience a series of small successes, they come to feel that outcomes are under their personal control (Koelen & Lindström, 2005, p. s13).

An empowerment process that aims to develop non-cognitive capabilities with individuals, however, should not only pay attention to development of self-efficacy; more factors play a role. In order to provide a systematic discussion of possible interventions that might contribute to such non-cognitive capabilities, we use a theory by Fishbein & Azjen (1975). They distinguish three possible factors that affect people's willingness to change their attitudes and behaviours; autonomous motivation (internal motivation), social norms (external motivation) and capabilities. By autonomous motivation Fishbein & Azjen (1975) mean that people have their own beliefs about the world. This is said to influence their attitude and intentions, and eventually their behaviour. External motivation, is about the social norms and ideas held by other people. Usually, these are the norms and expectations that the people close to you have, the people that you trust. If they value a certain behaviour, then you as a person are likely to take that into account, you will attach a certain level of salience to it, and it will therefore influence your

behaviour to a certain extent. The third factor refers to people's abilities to change their attitudes and behaviour. On the one hand this refers to cognitive and non-cognitive skills (including their self-efficacy) (Azjen, 1991, p. 183). But this also refers to the time, financial resources and access to opportunities.

Professionals or non-professionals (in a project like SVE) can use these three factors as basis for interventions to make people participate in activities aimed at strengthening their non-cognitive competencies.

First they can try to build on and strengthen people's internal motivations. Van Parys & Struyven (2018, p. 8) explain that people, as part of their internal motivations, strive by nature for self-development and autonomy. Based on their study they suggest that professionals should keep this in mind and maintain a balance between control and autonomy. Therefore, Van Parys & Struyven (2018, p. 8) suggest that the most effective way to interact with project participants, is to allow them to formulate their own plan (autonomy), but at the same time discuss this and make rules together about what happens when there is no compliance (control). In this way the autonomy and the motivations of the participant are respected, but there is also a precautionary measure in place for non-compliance.

Second, professionals can use external motivations to motivate people to participate in activities. The professionals in Hand's (2018) study also do this. By one-on-one interactions there is created an atmosphere of trust, this allows the professional to become part of the 'close network' of the participant. Instead of an outsider or an authoritative figure, the professional becomes an acquaintance of the participant. The participant attaches a higher salience to the opinions and advices of the people in this close network, and therefore the mothers in Hand's (2018) study become more likely to take professional advice about child nutrition into account. This may lead to the mother changing her behaviour. However, one might imagine that a professional could also try to create a close network while interacting with a group. This might lead to the additional effect of group members who motivate each other to persist (non-cognitive), or who teach each other how to engage in sports activities or life challenges (cognitive).

Another way in which professionals might try to tap into the external motivations of people, which was not mentioned in Hand (2018), is by paying attention to the interests, hobbies and passions of the participants. People with a lower Socio-Economic Status (SES) background are

usually big fans of professional football clubs. Therefore, these people will usually look up to professional football players and people from a professional football club. Hence, if a football player encourages someone to make a change in his/her behaviour, it might even be more effective than when a professional would make the suggestion.

Third, professionals can facilitate people's participation in project activities and design these activities in such a way, as to maximize the contributions these activities make to the actual development of non-cognitive capabilities. In Hand's (2018) study, participation was made possible/facilitated, by the U.S. Federal state, as it funded the programme. This removes a barrier for people to participate, as otherwise people may simply not be able to afford participation. Furthermore, the contribution of project activities can be maximized by making the activities or exercises not too ambitious, and by showing that they are feasible. This relates to the self-efficacy of people; people are made self-confident about their capabilities. The professionals in Hand's (2018, p. 15) study did this by subtly suggesting the mothers to make small nutrition changes in the food, and they made it seem feasible by mentioning that peers (other mothers), are also doing it. Over time, people will begin to see the professional as a non-authoritative 'friend', and this allows him/her to encourage the participant to make the subtle changes.

***Research design**:*

As already mentioned, the aim of this research project is to evaluate the SVE project. To this aim we use a so-called pre-test – post-test research design with different treatment groups. It is a variation on the so-called interrupted time-series research design. Before the project starts and after the project has ended the participants fill in a survey. Between these two surveys all people will receive a treatment, however, the treatment may differ in its intensity. This means that some people might participate much, for instance in all the educational activities (high participation), whereas others might choose to only participate in specific educational activities (middle participation), and another subset might choose to only occasionally participate in activities (low participation).

The experimental research design and our variant on the interrupted time-series design (the pre-test – post-test design), are appropriate for the purpose of our research, as they can establish an association between two variables, and test what the time-order is between these variables. These two research--designs can also, in principle, exclude the potential effect of third variables.

However, a potential threat in our research design is that the participants are not randomly assigned to a treatment group. People, are assigned to a treatment group based on their willingness to participate in that treatment group. Therefore, the effect of a third variable cannot be excluded. For instance, one could reason that a person who voluntarily signed himself up for an educational course realizes that he should learn something about a particular subject, for instance online banking. That person may then receive education on online banking during the SVE project to improve that competence. However, it may be that this person after the pre-test finds a really good book that is able to teach him online banking. After the post-test has been conducted, it is found that he has improved with regard to his online banking competences. Is it then the education in the SVE project that has improved his banking skills, or is it the online banking book? Analysing the open-ended survey questions or conducting additional interviews that are related to the education may help to identify third-variables, in this example the online banking book. Furthermore, interviews may help to reach at a better general understanding of the SVE project.

It was described above that the participants were asked to assess their own development as compared to their initial situation via two surveys. One possible critique to such a research design is that by asking the participants to assess their own development, there may not be arrived at objective results, and that the results that come from such a research design might therefore be biased. To address this bias, not only the project participants will be asked to assess their own development, but also the paid officials will be asked to assess the development of individual participants via a survey. In this way two different actors will provide an account of the individual's development of the personal competences, and this enhances the validity and reliability of the measurements regarding the development of the personal competences of the participants.

Furthermore, to get a better understanding of the methods that the paid officials of the SVE project apply, there will be conducted a number of interviews with these paid officials. In this way not only the *effects* of the treatment are analysed (e.g. via the surveys), but it will also help us to better understand what the treatment *consisted of*, and what *methods* the paid officials applied. Unfortunately, due to a limitation in resources and due to the often severe situations of the project participants, which makes them vulnerable, the participants will not be interviewed.

However, the project staff has published a video documentary that is publicly available via the internet video platform 'YouTube'. This video documentary consists of a series of videos in which the paid officials and the project participants are filmed while they engage in project activities. It shows how the paid officials interact with the participants (how professionals approach participants), it shows how the project participants might interact with each other and the professionals to discuss what activities they will engage in (how the treatment is determined), and it shows in what activities the participants and professionals do ultimately engage (what the treatment looks like). Although this documentary was created by the officials of the SVE project, and therefore might only portray the events that show a positive image of the project, it can still be seen as a useful addition to the information from the interviews and surveys as it allows us, the researchers, to observe the participants ourselves instead of only relying on the narratives of the officials and the information in documents; this is to say, even if the documentary shows predominantly the positive events of the project, the documentary still makes the project visual, and this allows us to make our own observations and assessment about the emotions and the behaviour of the participants.

Case selection and sampling

One *population* was analysed in this study. , these are the SVE project participants. The people that are selected, the sampling frame, consists of all the people that are approached by the staff of the SVE community initiative, or other people that are somehow involved in the SVE project, to become engaged in the project as a participant. Some vulnerable citizens may also approach the staff of the SVE project themselves, via a private message on social media such as Facebook, to become involved in the project as a participant; these people are also part of the sampling frame. The sample will then include all the people that actually started with the SVE project. The people that agree to fill in the survey before the project starts, and when the project has finished, and who actually *do* fill it in, are what we call the *interviewed sample*. However, people might not give an answer to all questions. This means that our data is limited to the questions that the studied units decided to give an answer to, these are our cases. Furthermore, the chance that a specific unit from the sampling frame is included in the study is unknown. Therefore, there is engaged here in non-probability sampling and one could therefore argue that this may lead to bias, as the selected units do not necessarily reflect the population. For example, immigrants and

low-literate people might not be able to answer survey questions as they do not master the Dutch language; they might not be able to read and understand it. This may lead to a non-response of these groups. Therefore, we will first analyse for possible biases, and if they occur we need to think later about how we can address these biases in our research.

Some of aspects of the SVE participants, however, were measured indirectly. To measure the motivation of the participants, and to get to know more about the treatment of the participants, we approached two of the paid officials which were asked to make an assessment of these aspects for each individual participant. The second population which is analysed are the paid officials of the SVE projects. The sampling frame consists of all the paid officials that were in any way involved in the SVE project. This means that they have played a role in the organization of the project, or that they have worked with the participants. Furthermore, some of the paid officials had a rather limited role in the project and the development of the personal competences of the participants (the mbo trainees) **(Interview 1&2)**. These trainees were involved in the project as part of their secondary vocational education (mbo) 'Sports & Exercise', and therefore their involvement in the project was primarily aimed at learning. This means that the trainees did not have a role in which their main responsibility was to train the personal competences of the individuals **(Interview 2)**. Other paid officials only engaged once in a certain project related activity (for instance, resilience trainers), and again other paid officials did only interact closely with a small number of the participants. In conclusion, interviewing and/or surveying all of the (paid) officials in-depth and separately would take too much time considering the relatively short time span of the research, and would probably not add knowledge that is pivotal to answer the research question(s). Furthermore, during the interviews it became clear that not all of the paid officials are well able to give an account of all of the participants. Hence, the interviewed sample will only consist of two paid officials. This will be the trajectory coordinator of the SVE-project and the programme coordinator.

Operationalization of the main concepts and data collection methods

Both quantitative and qualitative data will be used in this project. In the section "What are Non-Cognitive Personal Competences? (NCPCs)" was it explained that NCPCs can be characterized as a person's skill to manage his capabilities and resources in such a way that it enables him to

cope with life challenges. It is not only this skill that is a NCPC, also a person's confidence in his/her capabilities and environment is considered an NCPC.

In the pre-test and post-test participants surveys there were several questions expected to be related to NCPCs. These questions could be answered on a 5-point Likert-scale, where '1' stood for 'Always' and '5' for 'Never'. These were the following questions:

1. Ik ben een doorzetter (I am persistent).
2. Ik kan goed voor mezelf opkomen (I can stand up for myself).
3. Ik kan goed omgaan met moeilijke situaties (I can deal well with difficult situations).
4. Ik maak makkelijk contact met anderen (I make easily contact with others).
5. Ik heb zelfvertrouwen (I have self-confidence).
6. Ik heb mensen die mij helpen als dat nodig is (I have people that will help me when that is needed).
7. Ik heb vertrouwen in mijn toekomst (I have faith in my future).

Some of these questions were expected to measure the non-cognitive competences, and the internal- and external- self-efficacy of the participants. Just to clarify these concepts again, they will be repeated here: Internal (Self-)efficacy is explained as the belief that a person has in its own capabilities (Zimmerman & Rappaport, 1988, p. 729). External efficacy is the extent to which a person has the belief that the environment is "responsive" to him and his actions/capabilities (Zimmerman & Rappaport, 1988, p. 729). Sense of Coherence (SOC) is a concept which is similar to self-efficacy; just like self-efficacy does it describe an individual's assessment of its own competences, and does it describe how an individual assesses the responsiveness of the environment, however, SOC differs in the sense that it emphasizes the importance of resources (GRR), having an influence on the SOC.

Component Matrix[a]

	Component 1
T0 Ik heb zelfvertrouwen.	.874
T0 Ik ben een doorzetter.	.765
T0 Ik maak makkelijk contact met anderen.	.484
T0 Ik kan goed voor mezelf opkomen.	.828
T0 Ik heb vertrouwen in mijn toekomst.	.770
T0 Ik kan goed omgaan met moeilijke situaties.	.623
T0 Ik ken mijn sterke en zwakke punten.	
T0 Ik heb mensen die mij helpen als dat nodig is.	

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

Component Matrix[a]

	Component 1
T1 Ik heb zelfvertrouwen.	.706
T1 Ik ben een doorzetter.	.678
T1 Ik maak makkelijk contact met anderen.	.660
T1 Ik kan goed voor mezelf opkomen.	.564
T1 Ik heb vertrouwen in mijn toekomst.	.713
T1 Ik kan goed omgaan met moeilijke situaties.	.603
T1 Ik ken mijn sterke en zwakke punten.	.460
T1 Ik heb mensen die mij helpen als dat nodig is.	.560

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

To determine whether there are any underlying factors in these 7 survey questions, there was conducted a principal component analysis. This analysis on the basis of the responses of 35 participants yielded one, well interpretable underlying factor, namely non-cognitive competences. It is a scale of 5 survey questions, and it is deemed to be the most important measure of our dependent variable (NCPCs) in this bachelor thesis.

This is not to say that the other underlying factors, such as internal- and external- self-efficacy *do not exist* in reality. From our data, however, we are not *able to discern them*. The following items which were mentioned in the data section “Ik ken mijn sterke en zwakke punten” (I know my weaknesses and strengths) and “Ik heb mensen die mij helpen als dat nodig is” (I do have people that will help me when I need it), however, did not correlate with the underlying factor non-cognitive competences at both T0 and T1. Hence, they will be excluded from further analyses. For a more elaborate explanation on the principal component analysis, check appendix 1, pg. 1-2.

A secondary analysis, was conducted to be able to provide an answer to research question 3 and 4. There was created a small survey that was filled in by two paid officials. The most relevant items in this survey are the following:

1. Hoe intensief (hoe vaak) heeft deze deelnemer meegedaan aan SVE-project activiteiten? (How intensive (how often) has this participant participated in SVE-project activities?)
2. In hoeverre heeft de deelnemer zelf invloed gehad op de manier waarop zijn/haar problemen zijn aangepakt? (To what extent did the participant have an influence on the way in which his/her problems were addressed?)

Again, these are multiple-choice questions that could be answered on a 11-point Likert-scale, where 0 stood for 'Not participation in activities at all' or 'No influence at all' and '10' for 'Participation in all activities' or 'Very much influence'.

Qualitative and quantitative (statistical) data analysis

Qualitative (interview) analysis

What follows here is a discussion and theoretical interpretation of the interviews with the SVE project staff. For the privacy of the project staff this information is excluded from the public version of this bachelor thesis. The discussion and interpretation of this information is, however, archived by the University of Twente. In case a person would like to see this interview information, please contact the University of Twente to ask for the possibilities regarding this. In principle, this interview information is only accessible after the written informed consent of both the author and the interview respondents.

Statistical analysis

Research question 3: "*To what extent did the non-cognitive personal competences of the respondents develop over time? (From the start of the project till the end).*"

Now that it has been identified which items in the participants survey do, in fact, measure NCPCs will it be analysed how both the aggregate measure for NCPCs and the individual NCPCs, as measured by individual items, have developed. This will be done via a so-called paired sample t-test. Researchers use Paired sample t-tests if they want to "compare subjects with themselves before and after a treatment" (De Veaux, Velleman, Bock, 2016, p. 647). In this case, our subjects are SVE participants, and the treatment is their participation in the SVE project. For this test, however, three assumptions had to be fulfilled by the data. For an explanation on how these assumptions were fulfilled for our data, see Appendix 1 (p. 3.). The aggregate measure for NCPCs is arguably the most reliable measure for the development of the NCPCs, as it includes the most data on the development of NCPS (it includes data of five NCPC items, instead of only one item). Hence, the aggregate NCPC measure has the most *statistical power*.

Development of non-cognitive personal competences (aggregate measure)

In this paragraph will it be determined whether the mean score of the aggregate measure for non-cognitive competences has increased.

The null hypothesis H_0, is: (μ Non-cognitive personal competences T1 = μ Non-cognitive personal competences T0).

The alternative hypothesis 'H_A': (μ Non-cognitive personal competences T1 > μ Non-cognitive personal competences T0).

The significance level is α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0_Non_Cognitive_Competences	1.2627	34	.73125	.12541
	T1_Non_Cognitive_Competences	1.0760	34	.53512	.09177

A *lower* mean score on the aggregate Non-cognitive Personal competences item indicates an improvement in one's NCPCs. In comparison to T0, a relatively small decrease in the mean score can be observed at T1. The Paired Sample T-test will be used to determine whether this decrease is statistically significant.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	90% Confidence Interval of the Difference Lower	Upper			
Pair 1	T0_Non_Cognitive_Competences - T1_Non_Cognitive_Competences	.18676	.67552	.11585	-.00930	.38283	1.612	33	.116

The Paired Sample T-test gives a P-value of 0.116 (2-tailed). However, a decrease in the mean of the 'Non-cognitive competences' item was expected. Therefore, the P-value should be divided by two; 0.116:2= 0.058. P-value=0.058<0.10. Therefore, the null-hypothesis is rejected, and the alternative hypothesis is accepted: the mean score for Non-cognitive competences is, on average, *decreased* after participants have completed the SVE project. This implies that SVE participants express, on average, that they *have* improved their Non-cognitive competences after participating in SVE.

Development of self-confidence

The aim here is to determine whether the mean self-confidence of the SVE participants has increased.

The null hypothesis, 'H0', is therefore as following: The mean self-confidence of the SVE participants has not increased at T1, so after participation in the SVE project: (H_0: $\mu_{\text{Self-confidence T1}} = \mu_{\text{Self-confidence T0}}$). The null hypothesis will be refuted if the P-value of the observed *increase* in mean self-confidence of the SVE participants, is smaller than our significance level α=0.10. Hence, the alternative hypothesis 'H_A' is: ($\mu_{\text{Self-confidence T1}} > \mu_{\text{Self-confidence T0}}$).

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik heb zelfvertrouwen.	1.3235	34	1.00666	.17264
	T1 Ik heb zelfvertrouwen.	1.0588	34	.81431	.13965

A *lower* mean score on the self-efficacy (zelfvertrouwen) item indicates a *higher* self-confidence. This means that there can be observed a small increase in the self-confidence of the participants. The Paired Sample T-test will be used to determine whether this increase in self-confidence is statistically significant.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	90% Confidence Interval of the Difference Lower	Upper			
Pair 1	T0 Ik heb zelfvertrouwen. - T1 Ik heb zelfvertrouwen.	.26471	.82788	.14198	.02442	.50499	1.864	33	.071

The Paired Sample T-test gives a P-value of 0.071. However, this P-value is for 2-tailed test. Our test concerns a 1-tailed test, because it is estimated that there is *increase* in the self-efficacy of the SVE participants. Therefore the P-value should be divided by two. 0.071:2= 0.0355. This means that the P-value is smaller than the significance level of 0.10; P-value=0.0355<0.10. Therefore, the null-hypothesis is refuted, and the alternative hypothesis is accepted: the SVE participants express, on average, that their self-confidence is higher after they have completed the SVE project.

Development of persistence

In this paragraph it will be determined whether the mean persistence (doorzettingsvermogen) of the SVE participants has increased.

The null hypothesis H_0, is: (H_0: $\mu_{\text{Persistence T1}} = \mu_{\text{Persistence T0}}$).

The alternative hypothesis 'H_A' is: ($\mu_{\text{Persistence T1}} > \mu_{\text{Persistence T0}}$).

The significance level is, again, α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik ben een doorzetter.	1.1818	33	1.04447	.18182
	T1 Ik ben een doorzetter.	1.0303	33	.84723	.14748

A *lower* mean score on the persistence (doorzettingsvermogen) item indicates a *higher* persistence. This implies that there can be observed a small increase in persistence in the table

above at T1. The Paired Sample T-test will be used to determine whether the increase in persistence is statistically significant.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	90% Confidence Interval of the Difference Lower	Upper			
Pair 1	T0 Ik ben een doorzetter. - T1 Ik ben een doorzetter.	.15152	.97215	.16923	-.13514	.43817	.895	32	.377

The Paired Sample T-test gives a P-value of 0.377 (2-tailed). However, an increase in persistence was expected. Therefore the P-value should be divided by two. 0.377:2= 0.1885. This means that the P-value is bigger than the significance level of 0.10; P-value=0.1885>0.10. Therefore, the null-hypothesis is accepted and the alternative hypothesis is refuted: the SVE participants express, on average, that their persistence is *not* higher after they have completed the SVE project.

Development of the capability to make contact with others

In this paragraph it will be determined whether the mean score for the capability to make contact with others (contact maken met anderen) has increased.

The null hypothesis H_0, is: (H_0: $\mu_{\text{Contact with others T1}} = \mu_{\text{Contact with others T0}}$).
The alternative hypothesis 'H_A' is: ($\mu_{\text{Contact with others T1}} > \mu_{\text{Contact with others T0}}$).
The significance level is α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik maak makkelijk contact met anderen.	1.3030	33	1.18545	.20636
	T1 Ik maak makkelijk contact met anderen.	1.1515	33	.93946	.16354

A *lower* mean score on the item 'I make easily contacts with others' (contact met anderen) indicates a *higher* capability to make contact with others. A relatively small decrease in the mean

of the 'I make easily contact with others' item can be observed at T1. The Paired Sample T-test will be used to determine whether this decrease is statistically significant.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	90% Confidence Interval of the Difference Lower	Upper			
Pair 1	T0 Ik maak makkelijk contact met anderen. - T1 Ik maak makkelijk contact met anderen.	.15152	1.32574	.23078	-.23940	.54243	.657	32	.516

The Paired Sample T-test gives a P-value of 0.516 (2-tailed). However, an increase in the mean of the 'making contact with others' item was expected. Therefore the P-value should be divided by two. 0.516:2= 0.258. P-value=0.258>0.10. Therefore, the null-hypothesis is accepted and the alternative hypothesis is refuted: the mean score for the item 'I make easily contact with others' is, on average, *not* higher after participants have completed the SVE project. This implies that SVE participants, on average, do not deem their capability to make contact with others to be improved after participating in SVE.

Development of the capability to stand up for oneself

In this paragraph it will be determined whether the mean score for the capability to stand up for oneself (Ik kan goed voor mezelf opkomen) has increased.

The null hypothesis H_0, is: (H_0: $\mu_{\text{Stand up for myself T1}} = \mu_{\text{Stand up for myself T0}}$).
The alternative hypothesis 'H_A' is: ($\mu_{\text{Stand up for myself T1}} > \mu_{\text{Stand up for myself T0}}$).
The significance level is α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik kan goed voor mezelf opkomen.	1.0606	33	.93339	.16248
	T1 Ik kan goed voor mezelf opkomen.	.8485	33	.75503	.13143

A *lower* mean score on the item 'I can stand up for myself well' (Ik kan goed voor mezelf opkomen) indicates a *higher* capability to stand up for oneself. A relatively small decrease in the mean of the 'I can stand up for myself well' item can be observed at T1. The Paired Sample T-test will be used to determine whether this decrease is statistically significant.

Paired Samples Test

		Paired Differences							
					90% Confidence Interval of the Difference				
		Mean	*Std. Deviation*	*Std. Error Mean*	*Lower*	*Upper*	*t*	*df*	*Sig. (2-tailed)*
Pair 1	T0 Ik kan goed voor mezelf opkomen. - T1 Ik kan goed voor mezelf opkomen.	.21212	.96039	.16718	-.07107	.49531	1.269	32	.214

The Paired Sample T-test gives a P-value of 0.214 (2-tailed). However, it was expected that people's capability to stand for themselves would improve. Therefore the P-value should be divided by two. 0.214:2= 0.107. P-value=0.107>0.10. Therefore, the null-hypothesis is accepted and the alternative hypothesis is refuted: the mean score for the item 'I can stand up for myself well' is, on average, *not decreased* after participants have completed the SVE project. This implies that SVE participants, on average, do not deem their capability to stand up for themselves to be improved after participating in SVE.

Development of trust in one's future

In this paragraph it will be determined whether the mean score for the trust in one's future (Ik heb vertrouwen in mijn toekomst) has increased.

The null hypothesis H_0, is: (H_0: $\mu_{\text{Trust in my future T1}} = \mu_{\text{Trust in my future T0}}$).
The alternative hypothesis 'H_A' is: ($\mu_{\text{Trust in my future T1}} > \mu_{\text{Trust in my future T0}}$).
The significance level is α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik heb vertrouwen in mijn toekomst.	1.1250	32	.94186	.16650
	T1 Ik heb vertrouwen in mijn toekomst.	.8438	32	.76662	.13552

A *lower* mean score on the 'I have trust in my future' (Ik heb vertrouwen in mijn toekomst) item indicates a *higher* trust in one's future. A relatively small decrease in the mean of the 'I have trust in my future' item can be observed at T1. The Paired Sample T-test will be used to determine whether this decrease is statistically significant.

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	90% Confidence Interval of the Difference Lower	Upper			
Pair 1	T0 Ik heb vertrouwen in mijn toekomst. - T1 Ik heb vertrouwen in mijn toekomst.	.28125	1.05446	.18640	-.03480	.59730	1.509	31	.141

The Paired Sample T-test gives a P-value of 0.141 (2-tailed). However, a decrease in the mean of the 'I have trust in my future' item was expected. Therefore, the P-value should be divided by two; 0.141:2= 0.0705. P-value=0.0705<0.10. Therefore, the null-hypothesis is refuted and the alternative hypothesis is accepted: the mean score for the item 'I can stand up for myself well' is, on average, decreased after participants have completed the SVE project. This implies that SVE participants express, on average, that they *do have more trust in their future* after participating in SVE.

Development of one's capability to deal with difficult situations

In this paragraph it will be determined whether the mean score for the capability to stand up for oneself (Ik kan goed voor mezelf opkomen) has increased.

The null hypothesis H_0, is: (H_0: $\mu_{\text{Capability to deal with difficult situations T1}} = \mu_{\text{Capability to deal with difficult situations T0}}$).

The alternative hypothesis 'HA': (μ Capability to deal with difficult situations T1 > μ Capability to deal with difficult situations T0).
The significance level is α=0.10.

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	T0 Ik kan goed omgaan met moeilijke situaties.	1.5000	34	.92932	.15938
	T1 Ik kan goed omgaan met moeilijke situaties.	1.3824	34	.65202	.11182

A *lower* mean score on the 'I can deal well with difficult situations (Ik kan goed omgaan met moeilijke situaties) item indicates an improvement in one's capability to deal with difficult situations. In comparison to T0, a relatively small decrease in the mean score be observed at T1. The Paired Sample T-test will be used to determine whether this decrease is statistically significant.

Paired Samples Test

		Paired Differences							
					90% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tailed)
Pair 1	T0 Ik kan goed omgaan met moeilijke situaties. - T1 Ik kan goed omgaan met moeilijke situaties.	.11765	1.06642	.18289	-.19187	.42716	.643	33	.524

The Paired Sample T-test gives a P-value of 0.524 (2-tailed). However, a decrease in the mean of the 'I have trust in my future' item was expected. Therefore, the P-value should be divided by two; 0.524:2= 0.262. P-value=0.262>0.10. Therefore, the null-hypothesis is accepted, and the alternative hypothesis is refuted: the mean score for the item 'I can deal well with difficult situations' is, on average, *not decreased* after participants have completed the SVE project. This implies that SVE participants express, on average, that they do *not have* a better capability to deal with difficult situations after participating in SVE.

Reflection on the statistical data analysis - development of the NCPCs

All of the individual items which measured a NCPC such as the 'capability to stand up for oneself' showed a decrease in their mean score, which implies that the capability has *improved.* However, these improvements were not found to be statistically significant. The aggregate NCPC variable which includes all the individual NCPC items and represents the change in NCPCs (the difference between T0 and T1), however, did show a statistically significant result: on average do SVE participants deem their NCPCs to be improved. This is most likely because the aggregate NCPC variable includes more data than individual NCPC items, and therefore has more *statistical power*. When there is more data included in a statistical test, the chance that a null-hypothesis gets rejected will increase. This means that when you have a low amount of data per item, that there is a relatively *high chance* that you do not find a statistically significant increase, whereas in reality there *is* a significant increase. This is called a 'Type 2 error'. 3. The SVE survey data for the individual NCPC items consisted of data for, at most, 35 individuals. Therefore, if our sample would have consisted of survey responses of *more individuals,* we probably would have found more statistically significant developments for individual NCPC items, and the chance of making Type 2 errors would decrease.

Furthermore, important to note is that only the individual items for 'self-confidence' and 'trust in one's own future' did show a statistically significant decrease in their mean score, which implies that the participants express that they have more self-confidence and trust in their future after their participation in SVE. Many other individual items, such as those that measure the persistence and the capability to deal with difficult situations did show a decrease in their mean score, which would imply an increase in those capabilities. However, these changes were not found to be statistically significant. A possible explanation for this observation goes the following: whereas all individual items are NCPCs, it is possible to make a twofold distinction between the NCPCs, namely between *attitudes*, and *capabilities*. Self-confidence and trust in one's own future are attitudes, whereas items such as persistence and the capability to deal with difficult situations are better characterized as capabilities. Likely, attitudes can be more easily changed than the capabilities, and that is probably why 'self-confidence' and 'trust in one's own future' do show a statistically significant improvement (=decrease in mean score), whereas all the capabilities did show an improvement, but not a statistically significant improvement.

Therefore, this observation most likely implies that attitudes as part of NCPCs are more easily changed in a short project of 6-7 months, than the capabilities that are part of NCPCs. However, it might also be that if the number of cases is increased to let's say 100 participants instead of 35, that more individual items which show an improvement for Non-cognitive *capabilities* become statistically significant.

As already mentioned, two paid officials were asked as well to assess the development of individual participants. These were the programme coordinator and the trajectory coordinator, as they knew the participants the best, and kept track of the goals and development of the participants during the project. The results of their assessments are summarized below.

Goal achievement of the SVE-participants

As assessed by the paid officials

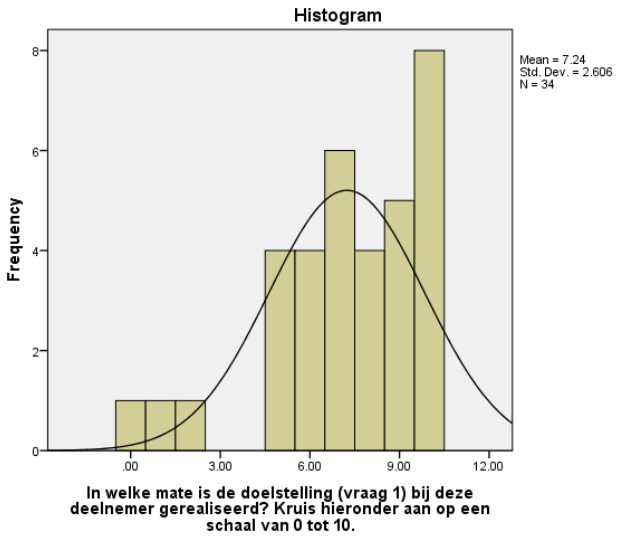
In welke mate is de doelste

N	Valid	34
	Missing	1
Mean		7.2353
Median		7.5000
Mode		10.00
Std. Deviation		2.60604
Variance		6.791
Range		10.00
Minimum		.00
Maximum		10.00

In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Helemaal niet	1	2.9	2.9	2.9
	1	1	2.9	2.9	5.9
	2	1	2.9	2.9	8.8
	5	4	11.4	11.8	20.6
	6	4	11.4	11.8	32.4
	7	6	17.1	17.6	50.0
	8	4	11.4	11.8	61.8
	9	5	14.3	14.7	76.5
	Volledig	8	22.9	23.5	100.0
	Total	34	97.1	100.0	
Missing	999.00	1	2.9		
Total		35	100.0		

It is listed here that the paid officials assessed the goal achievement of 33 participants. A score of 0 stands for 'No goal achievement at all' and a score of 10 stands for 'Complete goal achievement'. The scale is ordinal, as a participant scoring an 8 has not 'double the goal achievement' as compared to a person scoring a 4. A person scoring a 8, however, *does* have a better goal achievement as compared to a person scoring a 4. The mean score for goal achievement is a 7.2, and the score that was given most often by the paid officials (the mode) is a 10.



In the histogram it becomes visible that the distribution of the scores for the goal achievement is very much skewed to the left, it roughly follows a line from the bottom left corner of the picture to the upper right corner of the picture. Therefore, the scores for the goal achievement are *not* normally distributed. We see a cluster of relatively low scores on the left, and a cluster of relatively high scores on the right. How to explain then the cluster of people that participated in SVE, but who did not achieve their goal (the left side of the histogram)? In the survey the paid officials gave an explanation for the low goal-achievement of these 3 particular individuals. These are people that experienced problems in their relational sphere during the project, or who did not seem to realise that there is a correspondence between their actions and their goals.

It should be noted here, however, that the paid officials might overestimate the goal-achievement of the participants that they guided. The paid officials are basically asked here to assess their own work, because they are at least to some extent responsible for the goal-achievement of the participants. Therefore, they might have a tendency to give the participants a relatively high score for their goal-achievement.

The extent to which the goal-approach was aimed at developing non-cognitive personal competences

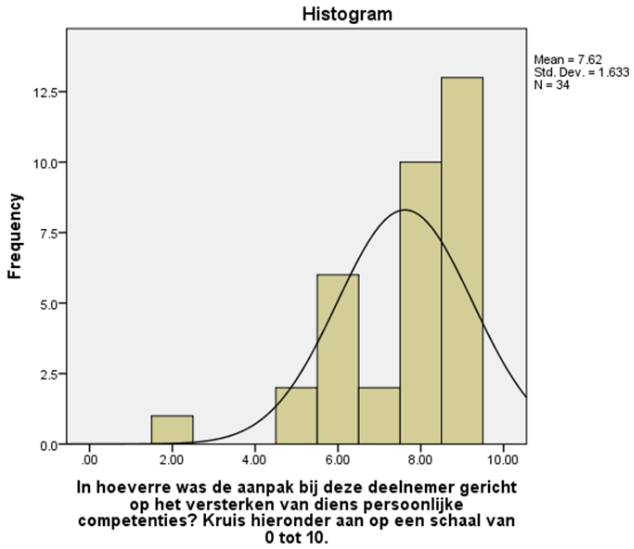
Statistics

In hoeverre was de aanpak

N	Valid	34
	Missing	1
Mean		7.6176
Median		8.0000
Mode		9.00
Std. Deviation		1.63327
Variance		2.668
Range		7.00
Minimum		2.00
Maximum		9.00

In hoeverre was de aanpak bij deze deelnemer gericht op het versterken van diens persoonlijke competenties? Kruis hieronder aan op een schaal van 0 tot 10.

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	2	1	2.9	2.9	2.9
	5	2	5.7	5.9	8.8
	6	6	17.1	17.6	26.5
	7	2	5.7	5.9	32.4
	8	10	28.6	29.4	61.8
	9	13	37.1	38.2	100.0
	Total	34	97.1	100.0	
Missing	999.00	1	2.9		
Total		35	100.0		



The goal-approach and the extent to which this approach was aimed at developing NCPC, was assessed for 34 individual participants. With 'approach' is meant here: the approach to the participant's goals. The question could be answered on a 10-point Likert scale, with 0 meaning 'not at all' and 10 meaning 'completely'. However, only one observation with the score '2' was present, all the other 33 observations were between the numbers '5' and '9'. Eight respondents scored a 5 or a 6 with regard to the extent to which their approach was being aimed at developing personal competences. The goals of these 8 respondents included, for instance, losing weight, learning a language, or to sport more. Such goals are good examples of cognitive competences, as they can be learnt by practice and that is probably why their approach was considered to be

less aimed at developing personal-, non-cognitive, competences by the paid officials. People that score a 8 or 9, as assessed by the paid officials, did not only have a health related goal such as to sport more or to lose weight, they also worked on their personal competences. Examples of this are participants 8, 15, 29, 36, and more. They specifically aimed to develop their self-confidence, wanted to find out what they want to do with their life, so give their life direction, or learn how they should interact during a job interview. This is not to say that the people with a score of 5, or 6 did *not at all* focus on developing their personal competences. To really increase your health, or to keep your weight at the desired number of kilograms, personal-, non-cognitive competences are also needed, for instance persistence; if you do not maintain your diet, you will quickly gain weight again. The act of losing weight, so performing in exercises such as running, playing soccer, or performing push-ups at the gym, is a competence, that can be learnt by doing, by experience. It is knowledge on how you have to do something, and therefore it is a cognitive competence. Finding your calling in life, gaining more self-confidence, or learning how to interact with others is more complicated, it is not simply an act of repeating, of experience. They are the skills that enable you to apply and gather knowledge. Therefore, these kinds of skills are called non-cognitive competences.

To summarize, the main point that is tried to be made here is that in order to reach a goal, you basically always needs both cognitive and personal-, non-cognitive, competences. However, the nature of some goals is distinctively more non-cognitive than others, and in the SVE project this generally seems to coincide with an approach that is relatively more aimed at the development of non-cognitive competences.

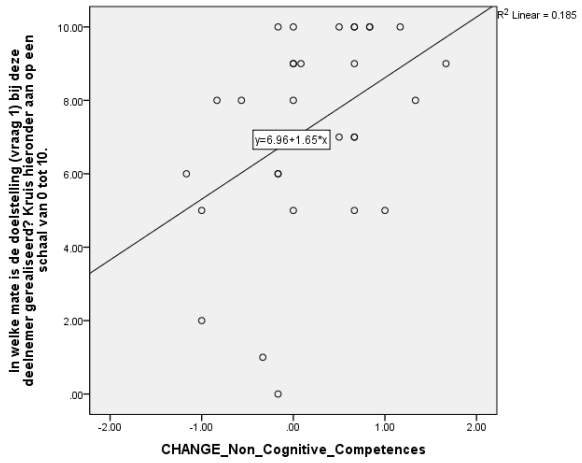
From this analysis, however, it became clear that for almost every respondent, there was *some* emphasis on the development of personal competences in the goal-approach. Therefore, can the data for the question “To what extent has the goal of this participant been realised?” also be used as a dependent variable which measures the development of the NCPCs of the participants, in the main research question: *"To what extent does participation of vulnerable citizens in the ‘Supporter van Elkaar’ community-initiative of FC Twente, help these citizens to improve their personal competences?”*

This assumption finds support in the fact that there is a statistically significant correlation between the dependent variables “Change in NCPCs” (as assessed by SVE participants) and “Goal-achievement” (as assessed by the paid officials):

Correlations

		CHANGE_ Non_Cognitive_Competences	*In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.*
CHANGE_Non_Cognitive_Competences	Pearson Correlation	1	.430*
	Sig. (2-tailed)		.012
	N	34	33
In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.	Pearson Correlation	.430*	1
	Sig. (2-tailed)	.012	
	N	33	34

*. Correlation is significant at the 0.05 level (2-tailed).



P-value:2= 0.012:2= 0.006;

0.006 < The significance level of α=0.10;

Therefore, is there a statistically significant correlation between the dependent variables “Change in NCPCs” (as assessed by SVE participants) and “Goal-achievement” (as assessed by the paid officials).

Besides questions that were related to the goal-achievement of the participants, the paid officials were asked questions about the motivation of the individual participants and about the intensity of the participation, so how often people took part in SVE activities. Furthermore, the paid officials were asked questions on their interactions with individuals. The results of both these types of questions are shown here. As the FC-Twente context of the project is also expected to have an influence on the interactions between the professionals and the participants, is this data also being analysed here below.

Data related to Research Question 3a: *"How actively were participants engaged in the project?"*
(as assessed by the paid officials)

The trajectory coordinator and the programme coordinator also assessed the goal achievement of the SVE participants. For each participant they were asked to give an answer to the question: "How intensive (how often) did this participant take part in SVE-project activities?" The paid officials could give an answer to this question by ticking a box on a scale from 0 to 10, where '0' stands for 'No participation at all', and '10' stands for 'Participation in all activities'.

Statistics

Hoe intensief (hoe vaak) h

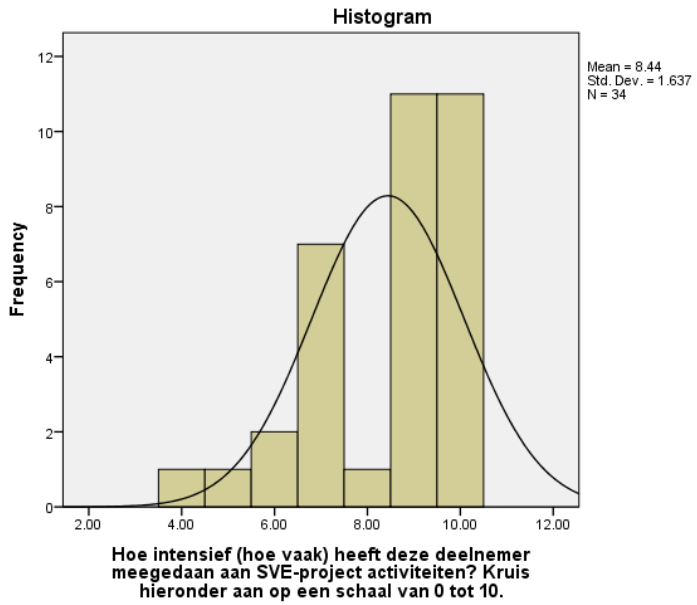
N	Valid	34
	Missing	1
Mean		8.4412
Median		9.0000
Mode		9.00[a]
Std. Deviation		1.63654
Variance		2.678
Range		6.00
Minimum		4.00
Maximum		10.00

a. Multiple modes exist. The smallest value is shown

Hoe intensief (hoe vaak) heeft deze deelnemer meegedaan aan SVE-project activiteiten? Kruis hieronder aan op een schaal van 0 tot 10.

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	4	1	2.9	2.9	2.9
	5	1	2.9	2.9	5.9
	6	2	5.7	5.9	11.8
	7	7	20.0	20.6	32.4
	8	1	2.9	2.9	35.3
	9	11	31.4	32.4	67.6
	Meegedaan aan alle activiteiten	11	31.4	32.4	100.0
	Total	34	97.1	100.0	
Missing	999.00	1	2.9		
Total		35	100.0		

Again, a total of 33 participants were assessed by the programme coordinator and trajectory coordinator. The scale is also again ordinal, and the mean score for the intensity of the participation is a 8.4. The scores that were given the most often are 9 (for 11 respondents) and 10 (for 11 respondents). Notably, no individual score lower than a 4.



Also for the intensity of the participation the scores are very much skewed to the left. Only two times did participants score a 4 or a 5. The rest of the participants (32 people, 94.1%) did score a 6 or higher for the intensity of their participation. Again, the distribution approximately follows a line from the down-left corner to upper-right corner. Hence, the distribution of the scores for the intensity of the participation in SVE activities are *not* normally distributed.

The quantitative data in the paid officials survey was accompanied with a small explanation for the scores of each individual. From those written explanations it becomes clear that the paid officials give the people who almost always take part in the SVE activities, so both the group activities and the individual activities, a score from 8 to 10 (23 people, 67.6%). People who do take part in group activities, but who do not put effort in individual activities, receive a score of 6 to 7 (9 people, 26.6%). This group also includes the people who do put effort in individual activities, but who sometimes do not show up for group activities. The people who receive a 5 or lower (2 people, 5.8%), do often not show up for group activities, and do not put enough effort in individual activities.

The motivation of the participants

As assessed by the paid officials

The paid officials also assessed the motivation of every individual participant. We as the researchers suspected that the intensity of the participation, so how often particpates in SVE

activities, is associated to the motivation of those individuals. Hence, the data for the motivation of the participants is discussed directly after the data of the intensity of the participation.

The question that was asked to paid officials goes: “How motivated was the participant with regard to this goal”? By ‘this goal’ the goal of the participant was implied. Again, the paid officials could give an answer to this question by filling in an ordinal scale where ‘0’ stood for ‘Not at all motivated’ and ‘10’ for ‘Very motivated’.

Statistics

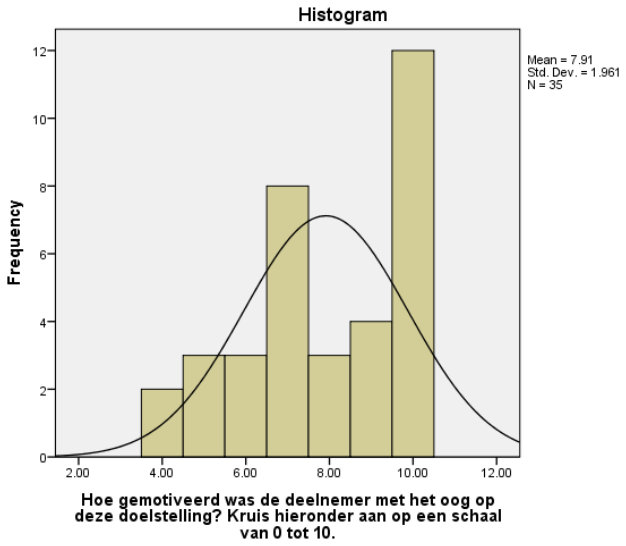
Hoe gemotiveerd was de d

N	Valid	35
	Missing	0
Mean		7.9143
Median		8.0000
Mode		10.00
Std. Deviation		1.96096
Variance		3.845
Range		6.00
Minimum		4.00
Maximum		10.00

Hoe gemotiveerd was de deelnemer met het oog op deze doelstelling? Kruis hieronder aan op een schaal van 0 tot 10.

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	4	2	5.7	5.7	5.7
	5	3	8.6	8.6	14.3
	6	3	8.6	8.6	22.9
	7	8	22.9	22.9	45.7
	8	3	8.6	8.6	54.3
	9	4	11.4	11.4	65.7
	Zeer gemotiveerd	12	34.3	34.3	100.0
	Total	35	100.0	100.0	

35 participants were assessed, with a mean score for their motivation of 7.9. The mode was the score ‘10’. The lowest score was a ‘4’ and the highest score was obviously a ‘10’.



We see that most of the participants score a 6 or higher (30 of the 35 participants, 85.7%) for their motivation.

If you compare the histograms of the motivation and the intensity of the participation with each other, then it appears as if they are very similar to each other. In both histograms there can be observed a small group of individuals who have a score of 3 to 6 (low intensity, low motivation), there is group who scores a 7 (middle intensity, middle motivation) and there is a group who scores relatively high (8-10) on both variables (high intensity, high motivation). To analyse whether our observation is actually statistically significant, a statistical test will be performed.

Correlations

		Hoe gemotiveerd was de deelnemer met het oog op deze doelstelling? Kruis hieronder aan op een schaal van 0 tot 10.	*Hoe intensief (hoe vaak) heeft deze deelnemer meegedaan aan SVE-project activiteiten? Kruis hieronder aan op een schaal van 0 tot 10.*
Hoe gemotiveerd was de deelnemer met het oog op deze doelstelling? Kruis hieronder aan op een schaal van 0 tot 10.	Pearson Correlation	1	.700**
	Sig. (1-tailed)		.000
	N	35	34

The statistical analysis shows that the p-value for the correlation is lower than our significance level of 0.10. P-value=0.000<0.10. Therefore, is the correlation between the intensity of the participation and the motivation of the participant statistically significant.

In conclusion, people who have a relatively high score for their motivation have, on average, also a relatively high score for their participation.

Research question 3b: "How did SVE-participants interact with the paid officials?"

***-Aspect 1 The influence that the participant had on the approach to the problem (*as assessed by the paid officials)**

-Aspect 2: The FC Twente-context (as assessed by the SVE-participants)

Aspect 1: Influence of the participant on the approach to the problem problem (as assessed by the paid officials)

The trajectory coordinator and the programme coordinator were also asked to explain for each individual participant how much influence they had on the way in which their problems were addressed. Therefore, for each individual participant the paid officials gave an answer to the question: "To what extent did the participant have an influence on the way in which his/her problems were addressed?" The paid officials could give an answer to this question by ticking a box on a scale from 0 to 10, where '0' stands for 'No influence at all', and '10' stands for 'Very much influence'.

Statistics

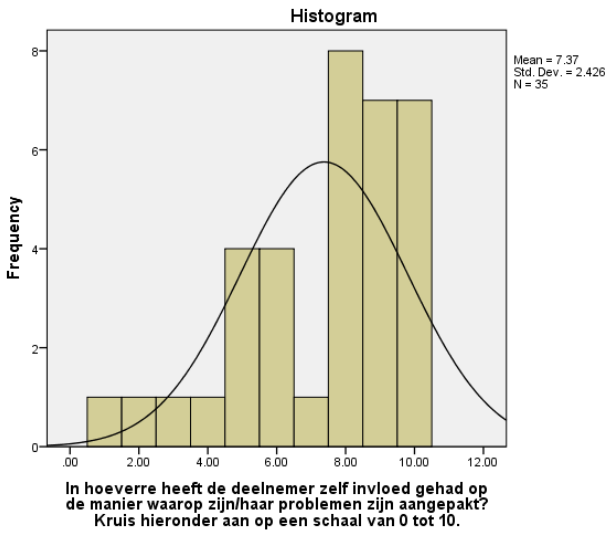
In hoeverre heeft de deelne

N	Valid	35
	Missing	0
Mean		7.3714
Median		8.0000
Mode		8.00
Std. Deviation		2.42640
Variance		5.887
Range		9.00
Minimum		1.00
Maximum		10.00

In hoeverre heeft de deelnemer zelf invloed gehad op de manier waarop zijn/haar problemen zijn aangepakt? Kruis hieronder aan op een schaal van 0 tot 10.

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Geen enkele invloed	1	2.9	2.9	2.9
	2	1	2.9	2.9	5.7
	3	1	2.9	2.9	8.6
	4	1	2.9	2.9	11.4
	5	4	11.4	11.4	22.9
	6	4	11.4	11.4	34.3
	7	1	2.9	2.9	37.1
	8	8	22.9	22.9	60.0
	9	7	20.0	20.0	80.0
	Zeer veel invloed	7	20.0	20.0	100.0
	Total	35	100.0	100.0	

This time, a total of 35 participants were assessed by the programme coordinator and trajectory coordinator. The scale is again ordinal, and the mean score for the intensity of the participation is a 7.4. The score that was given the most often was an 8 (by 8 respondents).



The scores for 'the extent to which participants had an influence on the way in which their problems were addressed' are very much skewed to the left. Only four participants did get a score of 4 or lower. The rest of the participants (31 people, 88.6%) did score a 5 or higher. Again, the distribution approximately follows a line from the down-left corner to upper-right corner. Hence, the distribution of the scores for the intensity of the participation in SVE activities are *not* normally distributed.

However, a division between on the one hand 'low influence on the division *in two groups* might be oversimplified, as the paid officials seem to have clearly made a division *in three groups*: 1. People who had *little to no influence* on the way in which their problems were addressed have a score of 0 to 4 (4 people, 11.4%). 2. People who had *some influence* have a score of 5 till 7 (9 people, 25.7%). And 3. People who had *many influence* have a score 8 till 10 (22 people, 62.9%).

In conclusion, during the interactions between the paid officials and the participants, the participants had a relatively high influence on their goal-approach.

Aspect 2: The FC-Twente context

As was mentioned during the interview, the SVE project and the paid officials use the FC Twente context as a way to involve people and to gather their respect and interest (Interview 2, 2019, p. 25). Therefore, the paid officials seem to believe in the effect of the FC-Twente context.

However, to find out whether the participants in fact *do* value this context (the participants are mainly women, with the exception of one male participant), two survey questions were asked at the beginning of the project, at T0.

The first question concerns: "How important do you find the involvement of FC Twente in SVE?" Where '0' stands for "Very important", 1 for "Important, 2 for 'Not really important', and 3 for 'Unimportant'.

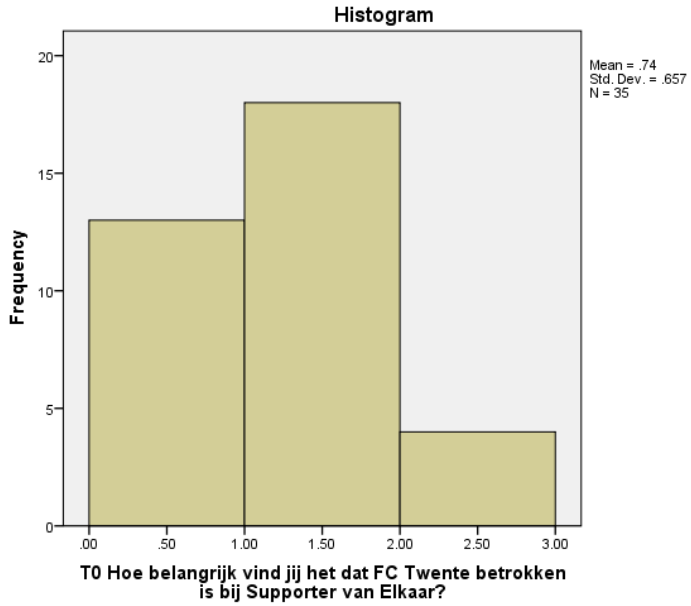
Statistics

T0 Hoe belangrijk vind

N	Valid	35
	Missing	0
Mean		.7429

T0 Hoe belangrijk vind jij het dat FC Twente betrokken is bij Supporter van Elkaar?

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Zeer belangrijk	13	37.1	37.1	37.1
	Belangrijk	18	51.4	51.4	88.6
	Niet echt belangrijk	4	11.4	11.4	100.0
	Total	35	100.0	100.0	



'Unimportant' which would be on the x-axis from 3.00 till 4.00, is not listed at all, which means that none of the participants finds the involvement of FC Twente unimportant. In conclusion, 31 of the 35 participants found the involvement of FC Twente 'important' to 'very important', which is 88,6% of the participants. This means that a considerable amount of the participants does value the involvement of FC Twente in SVE.

The second question concerns: “If FC Twente would NOT have been involved in SVE, would you still have participated?” Participants could give their answer on an ordinal scale. The answer categories for this question have been recoded so that its values will correspond with the direction of the answers on the first question on the FC Twente context. Furthermore, this will allow for the creation of one ‘FC Twente context’ variable that can be used in the following section of this thesis. ‘0’ stands for ‘Surely I would have not participated’, ‘1’ for ‘Maybe not’, ‘2’ for ‘Maybe I would have participated’, ‘3’ for ‘Surely, I would have participated’.

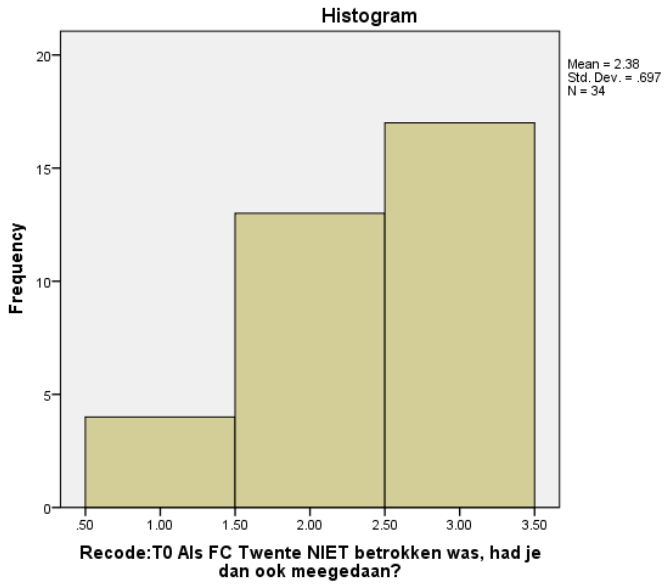
Statistics

Recode:T0 Als FC Twent

N	Valid	34
	Missing	1
Mean		2.3824

Recode:T0 Als FC Twente NIET betrokken was, had je dan ook meegedaan?

		Frequency	*Percent*	*Valid Percent*	*Cumulative Percent*
Valid	Misschien niet	4	11.4	11.8	11.8
	Misschien wel	13	37.1	38.2	50.0
	Zeker wel	17	48.6	50.0	100.0
	Total	34	97.1	100.0	
Missing	System	1	2.9		
Total		35	100.0		



In the histogram it becomes visible that nobody expressed that he/she would *not* have participated if FC Twente would not have been involved in SVE. 17 participants (50%) know for sure that they would still have participated in SVE if FC Twente would not have been involved in the project (3.00-4.00). 13 participants expressed that they probably (but not for sure) *would* have participated if FC Twente would not have been involved in SVE. Therefore, 30 of the 34 people (88.2%) expressed that they probably *or* certainly would have still participated in SVE if

FC Twente would not have been involved in the project. The data for these two questions seems to imply that on the one hand the participants express that they very much value the involvement of SVE as expressed in the first question on the FC Twente context, but that on the other hand the involvement of FC Twente is not a prerequisite for their participation.

First Multiple linear regression analysis: Achievement of the goal (=Development of NCPCs), as assessed by the paid officials, and its predictors

The analyses which were performed for research question 3 showed that the NCPCs of the participants increased after their participation in SVE. However, it is also good to know to what extent our identified factors, such as the approach taken by the paid officials, and characteristics of the participants such as the intensity of their participation, and their motivation, as measured in the survey for the paid officials, do play a role in this development of the NCPCs. This section focusses on the main research question: "To what extent does participation of vulnerable citizens in the 'Supporter van Elkaar' community-initiative of FC Twente, help these citizens to improve their personal competences?"

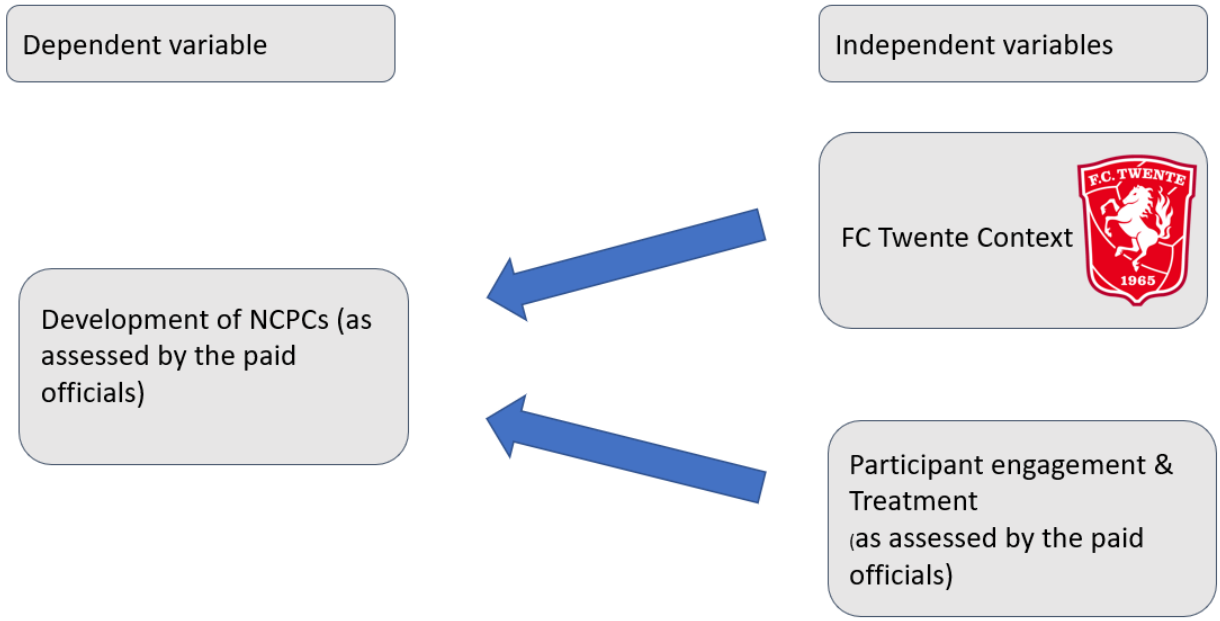
In the first multiple regression model is the variable "To what extent has the goal of this participant been realised?" or differently, 'Goal realisation of the participant (as assessed by the paid officials)', the dependent variable. The independent variables that supposedly influence this goal achievement are 'the FC Twente context of the project', 'the motivation of the participant', 'How often the participant took part in SVE activities (intensity of the participation), 'the influence that the participant had on the goal approach', and 'the extent to which the goal-approach was aimed at developing personal competences'. An assumption which has to be fulfilled to conduct a multiple regression analysis, however, is that there should not be multicollinearity between the independent variables. Multicollinearity means that the independent variables in a multiple regression analysis have a high correlation with each other. Multicollinearity is problematic, because the different independent variables should all explain a different proportion of the variance in the dependent variable. The threshold value for correlation between the independent variables is R=0.7.

Correlations

		In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.	*T0_Context_FC_Twente*	*Hoe gemotiveerd was de deelnemer met het oog op deze doelstelling? Kruis hieronder aan op een schaal van 0 tot 10.*	*Hoe intensief (hoe vaak) heeft deze deelnemer meegedaan aan SVE-project activiteiten? Kruis hieronder aan op een schaal van 0 tot 10.*	*In hoeverre heeft de deelnemer zelf invloed gehad op de manier waarop zijn/haar problemen zijn aangepakt? Kruis hieronder aan op een schaal van 0 tot 10.*	*In hoeverre was de aanpak bij deze deelnemer gericht op het versterken van diens persoonlijke competenties? Kruis hieronder aan op een schaal van 0 tot 10.*
Pearson Correlation	In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.	1.000	.128	.762	.637	.694	.667
	T0_Context_FC_Twente	.128	1.000	.010	-.051	-.128	.090
	Hoe gemotiveerd was de deelnemer met het oog op deze doelstelling? Kruis hieronder aan op een schaal van 0 tot 10.	.762	.010	1.000	.701	.801	.719
	Hoe intensief (hoe vaak) heeft deze deelnemer meegedaan aan SVE-project activiteiten? Kruis hieronder aan op een schaal van 0 tot 10.	.637	-.051	.701	1.000	.687	.695
	In hoeverre heeft de deelnemer zelf invloed gehad op de manier waarop zijn/haar problemen zijn aangepakt? Kruis hieronder aan op een schaal van 0 tot 10.	.694	-.128	.801	.687	1.000	.788
	In hoeverre was de aanpak bij deze deelnemer gericht op het versterken van diens persoonlijke competenties? Kruis hieronder aan op een schaal van 0 tot 10.	.667	.090	.719	.695	.788	1.000

It was already observed that the intensity of participation variable, and the motivation variable do correlate with each. The correlation matrix for the multiple linear regression analysis shows, however, that *all* the variables except the FC Twente context variable have a correlation with each other of over 0.7, or a correlation that is very close to 0.7. Therefore, is there a potential problem of multicollinearity. A preliminary analysis confirmed this suspicion and therefore we decided to merge the variables that show multicollinearity into one big new variable, called 'Participant engagement & Treatment' to describe the variables which it consists of. Participant engagement stands here for the motivation of the participant, and the intensity of its participation. Treatment stands for the influence that the participant had on the goal-approach, and the extent to which the goal-approach was aimed at developing NCPC.

The new multiple linear regression analysis therefore now, presumably, looks the following way, with two independent variables that explain the variance in the dependent variable.



The aim here is to find out whether the effect of the independent variables on the dependent variable is statistically significant. This statistical test will be conducted next. However, to conduct a multiple linear regression analysis several other assumptions besides the no-multicolinearity assumption have to be fulfilled as well. These other assumptions have been checked and fulfilled in *Appendix 1* (p. 8), because adressing all those assumptions in the bachelor thesis would make the story unnecessarily long.

Hypotheses for the Multiple Linear Regression

The null hypothesis H_0: (β FC Twente context & β Participant Engage & Treatment = 0)
The alternative hypothesis 'H_A': (β FC Twente context & β Participant Engage & Treatment > 0)
The significance level is α=0.10.

Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*			*Collinearity Statistics*	
		B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
1	(Constant)	-2.925	1.702		-1.719	.096		
	T0_Context_FC_Twente	.837	.550	.177	1.521	.138	.993	1.007
	Participant_Engagement_Treatment	1.123	.173	.757	6.486	.000	.993	1.007

a. Dependent Variable: In welke mate is de doelstelling (vraag 1) bij deze deelnemer gerealiseerd? Kruis hieronder aan op een schaal van 0 tot 10.

For this multiple linear regression model, it is tested whether the effect of the independent variables on the dependent variable is statistically significant. The coefficient table show that the

effect (coefficient) of the FC Twente context variable on the development of NCPC, has a P-value (sig.) of 0.138. However, the expectation is an *increase* of the NCPCs. Therefore, P-value= 0.138:2=0.069. This P-value is *lower* than the significance level: P-value=0.069<0.10.

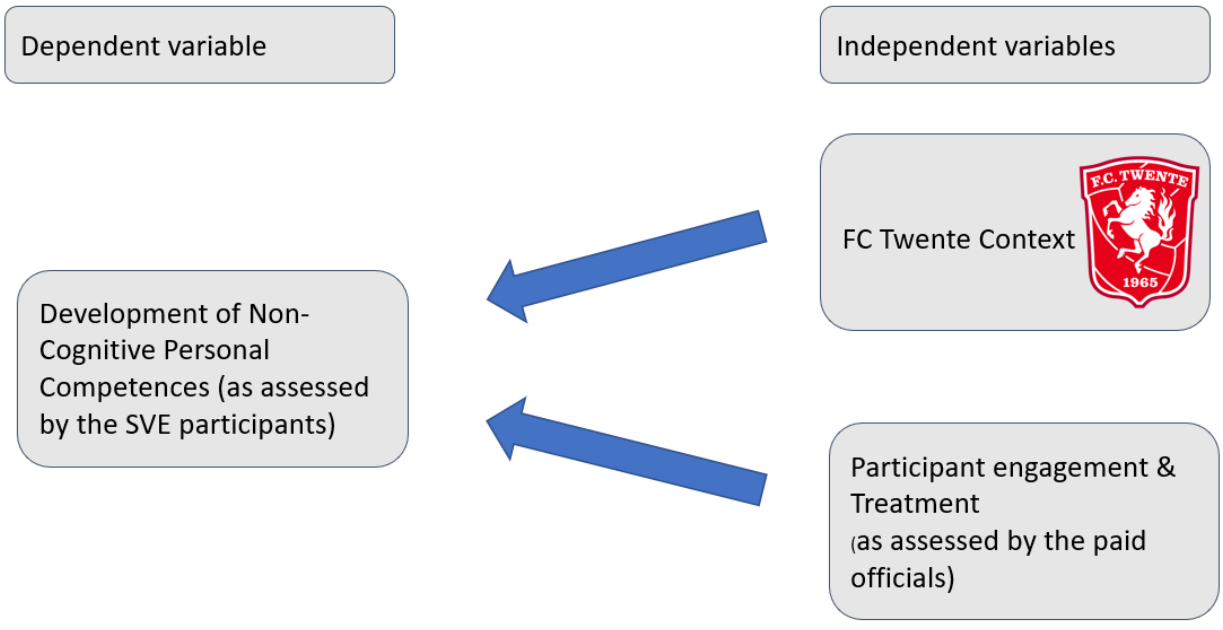
The P-value for "Participant Engagement & Treatment" also shows that the effect of this variable on the dependent variable is statistically significant. P-value=0.000<0.10.

Therefore, is the null hypothesis rejected and the alternative hypothesis accepted: the effect of the FC Twente context *and* the effect of the aggregate variable "Participant Engagement & Treatment" on the goal achievement of the participant (as assessed by the paid officials) are statistically significant.

Second Multiple linear regression analysis: Development of NCPCs, as assessed by the SVE participants, and its predictors

In the second multiple regression model is the variable "Change in Non-Cognitive Personal Competences" (as assessed by the SVE participants) the dependent variable. The independent variables that supposedly influence this goal achievement are 'the FC Twente context of the project', and the aggregate variable 'Participant Engagement & Treatment'.

The second multiple linear regression analysis therefore, presumably, looks the following way, with two independent variables that explain the variance in the dependent variable.



The aim here is to find out whether the effect of the independent variables on the dependent variable is statistically significant. Again, for the multiple linear regression to be conducted several assumptions must be fulfilled. These are addressed in *Appendix 1*.

Hypotheses for the Multiple Linear Regression

The null hypothesis H_0: (β FC Twente context & β Participant Engage & Treatment = 0)
The alternative hypothesis 'H_A': (β FC Twente context & β Participant Engage & Treatment > 0)
The significance level is α=0.10.

Coefficients[a]

Model		*Unstandardized Coefficients*		*Standardized Coefficients*			*Collinearity Statistics*	
		B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
1	(Constant)	-1.317	.539		-2.443	.020		
	T0_Context_FC_Twente	.054	.173	.049	.312	.757	1.000	1.000
	Participant_Engagement_Treatment	.183	.059	.482	3.072	.004	1.000	1.000

a. Dependent Variable: CHANGE_Non_Cognitive_Competences

The coefficients table is useful to evaluate whether the effect of the independent variables on the dependent variables is statisticaly significant. The effect of the FC Twente context variable on the development of NCPC, has a P-value (sig.) of 0.757. However, the expectation is an *increase* of the NCPCs. Therefore, P-value= 0.757:2=0.3785. This P-value is *higher* than the significance level: P-value=0.3785>0.10. Therefore, is the alternative hypothesis 'H_A': (β FC Twente context > 0) rejected, and the null hypothesis H_0: (β FC Twente context = 0) accepted. This implies that the effect of the FC Twente context variable on the development of NCPC (as assessed by the SVE participants) is *not* statistically significant.

The effect of the "Participant Engagement & Treatment" variable on the development of NCPC, however, has a P-value (sig.) of 0.004. The expectation is an *increase* of the NCPCs. Therefore, P-value= 0.004:2=0.002. This P-value is *lower* than the significance level: P-value=0.002<0.10. Therefore, is the null hypothesis rejected (H_0: β Participant Engage & Treatment = 0), and the

alternative hypothesis accepted (H_A: β Participant Engage & Treatment > 0) This implies that the effect of the aggregate variable "Participant Engagement & Treatment" on the development of NCPC (as assessed by the SVE participants) *is* statistically significant.

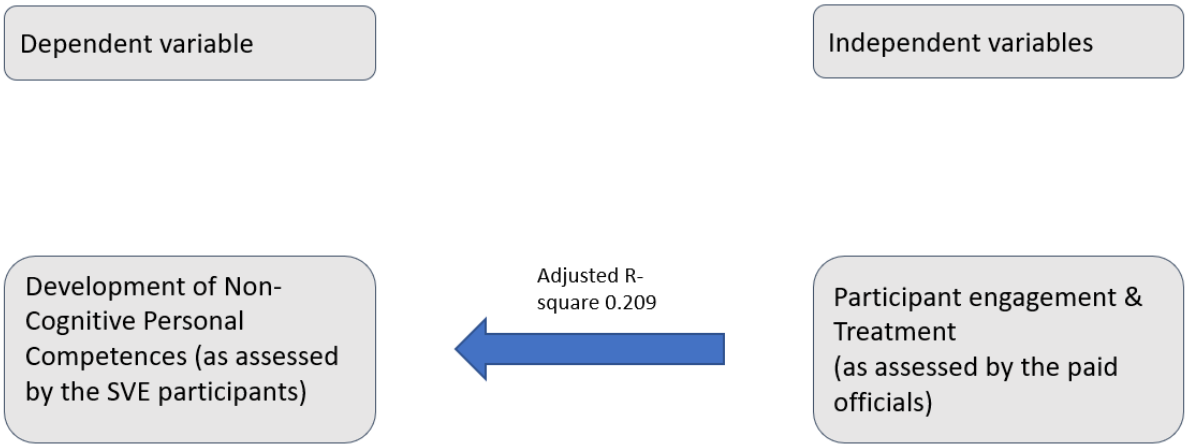
Model Summary[b]

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*Durbin-Watson*
1	.483[a]	.233	.209	.60061	2.682

a. Predictors: (Constant), Participant_Engagement_Treatment

b. Dependent Variable: CHANGE_Non_Cognitive_Competences

The result is a Linear Regression Model with one Independent variable, because the effect of the FC Twente context variable on the development of NCPCs (as assessed by the SVE participants), is disconfirmed. This new model has an adjusted R-square of 0.209. This means that the new model explains 20.9% of the variance of the dependent variable (Development in NCPCs, as assessed by the SVE participants). A visual representation of this model can be found below.



Looking back at the two Multiple Linear Regression analyses, it turns out that the first model includes the FC-Twente Context variable as an independent (predictor) variable, whereas the second model does not include this independent variable. This can probably be explained by the fact that the *dependent variables are different*. In the second model a variable is used which represent the development of the personal competences, as assessed by the SVE participants themselves. The dependent variable in the first model measures the goal achievement of the

participants, as assessed by the paid officials, however, we used this variable as an indicator for the development of NCPCs as assessed by the paid officials, because we reasoned that it also should measure the development of NCPCs. This is the case, because basically all the participants work to some extent on the development NCPCs as part of their goal, if they are to attain their goal, they logically also have to develop their NCPCs. However, this means that in the first model the dependent variable does not only measure the development of NCPCs, it might also measure the attainment of cognitive goals. The fact that the FC-Twente context variable does correlate statistically significantly with the dependent variable in model 2, whereas it does not with the dependent variable in model 1 might therefore imply the following: the FC-Twente context variable *does* correlate with the dependent variable in model 1 because it includes a cognitive aspect whereas the variable in model 2 does not. That would also imply that the FC-Twente context variable does not affect the development of NCPCs, at least in this project. It might be that the FC-Twente context does affect the development of NCPCs in other FC Twente projects such as 'Scoren met Gezondheid'.

If the first reasoning is true, then this would mean that the FC-Twente context does work for the development of cognitive capabilities, but that there is no evidence for a statistically significant effect of the FC-Twente context on the development NCPCs. Future research could provide an answer to this.

Conclusion of the bachelor thesis

The research in this bachelor thesis was focussed on the SVE-project and the main research question: "To what extent does participation of vulnerable citizens in the 'Supporter van Elkaar' community-initiative of FC Twente, help these citizens to improve their personal competences?" This is an important question, because in the Dutch debate there is a discussion regarding whether professional care should be transferred to informal social networks that are close the care-recipients, and whether this is feasible. The SVE-project, as a community-initiative, is an example of such an informal network.

Related to our main research question there were the following research sub-questions:

1. "What are the main objectives and activities of SVE?" (Descriptive research sub-question);

2. "To what extent did the non-cognitive personal competences of the respondents develop over time? (From the start of the project till the end)." (Descriptive research sub-question);

3. "How actively were participants engaged in the project (3a) and how did they interact with the paid officials (3b)?" (Descriptive research sub-question);

4. "What is the effect of participant's engagement (4a) and of the interactions with paid officials (4b) on NCPC development?" (Explanatory research sub-question).

From the interview with the programme coordinator and the trajectory coordinator we learnt that the SVE-project aims to enhance the competencies and the health of the participants, to enable them to participate (again) in the Dutch society. The participants work on their (non-cognitive or cognitive) competences and health by engaging in group- and individual activities, together with and/or under the guidance of paid officials, volunteers, students or (former) professional soccer players.

For the participants it was analysed whether their Non-Cognitive Personal Competences (NCPCs) have developed after participating in SVE. The statistical data analysis showed that the aggregate NCPC measure, which includes all the individual NCPC items, has improved statistically significantly. This indicates that the SVE participants express, on average, that their NCPCs have improved. Whereas all the individual NCPC items did show an improvement, not all these improvements were statistically significant. Only the items which measured an attitude as part of NCPCs (Self-confidence, Trust in one's own future) showed a statistically significant improvement. For the capabilities as part of NCPCs, such as the capability to deal with difficult situations, there was measured an improvement, however, this improvement was not statistically significant. Therefore, it is expected that if there had been more cases, or if the project had been considerably longer than 6-7 months, that more individual items which measured capabilities as part of NCPCs would have shown a statistically significant improvement.

However, to analyse the development of NCPCs we did not only rely on data which shows how the SVE participants assessed their development, we also used data from a paid officials survey. A survey item which was intended to measure the goal-achievement of the participants, as assessed by the paid officials, could also be used to analyse how the paid officials assessed the development of the NCPCs of the participants. The reason for that is that nearly all the participants, at least to some extent, focussed on the development of NCPCs. Thus, if the paid officials would express that a participant achieved its goal, this would imply that the participant had also achieved the development of a NCPC.

Furthermore, it was analysed how actively (how often) people participated (as assessed by the paid officials). Two variables were relevant for this: the intensity of the participation (how often people participated in activities) and the motivation of the participants. The participants scored relatively high on both of these items; 94.1% of the participants scored a 6 or higher for the intensity of their participation, and 85.7% scored a 6 or higher for their motivation. Also was there a statistically significant correlation between the motivation of the participants and the intensity of their participation, which implies that people with a relatively high motivation also participated relatively intensively.

The interactions between the participants and the paid officials were characterized by a relatively high level of influence of the participants; 88.6% of the participants scored a six or higher for the

level of influence they had on their goal-approach. Furthermore, did the interactions take place in the context of FC Twente. The participants were asked to give their opinion on this context. It was found that although the participants seem to find the FC Twente context important, it is not a prerequisite for their participation.

After the aforementioned analyses, the aim was to find out what the effect of the intensity of the participation, and the interactions, was on the development of the NCPCs. We used two dependent variables to measure the development of NCPCs; development of NCPCs as assessed by the SVE participants and development of NCPCs as assessed by the paid officials (this is actually the variable goal-achievement of the participants, as assessed by the paid officials, however, it was previously shown that this variable can also be used for development of NCPCs). The intensity of the participation and the interaction style, as described by the aggregate variable Participant engagement & treatment, had a statistically significant effect on both the dependent variables that measure the development of NCPCs. This implies that we have found that the intensity of the participation and the interaction style of the paid official *do affect* the development of NCPCs for SVE participants. The FC-Twente context variable, however, did *only* show a statistically significant effect for the 'development of NCPCs as assessed by the paid officials'-variable, and *did not* show a statistically significant effect for the development of NCPCs as assessed by the SVE participants. This has probably to do with the fact that the development of NCPCs as assessed by the paid officials-variable, *does also* describe the goal-achievement of cognitive competences. This suggests that the FC Twente context is effective for developing cognitive competences, whereas it is not effective for developing NCPCs.

In conclusion, this bachelor thesis has shown that a community-initiative like SVE can be effective in developing NCPCs. The self-confidence and the trust of the participants in their own future, did show a statistically significant improvement. The individual items that focus on the capabilities that are part of NCPCs (such as persistence) did show an improvement, however, these were not found to be statistically significant. The aggregate variable for NCPCs, however, did show a statistically significant improvement even when the individual items that address capabilities as part of NCPCs are included. This seems to suggest that if there had been more cases included in this study, that the capabilities as part of NCPS would also have shown a statistically significant improvement. Based on these findings, we therefore would like to

recommend that in the future, the statistical analysis would be conducted again with the data of *more cases*, to find out whether this presumption can be confirmed. The self-confidence and the trust of the participants in their future, however, was found to be statistically significantly improved, and this suggests that community-initiatives like SVE can *at least* be effective in developing the attitudes as part of Non-Cognitive Personal Competences.

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