# Experiences from a participation process in Göttingen Osterode Design Thinking as a target-oriented method

for the participation of young people

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# Abstract

Although young people are equal members of the community, they are generally excluded from municipal planning processes. This problem can be resolved by fostering participation, thereby making them more than mere spectators. Young people form a heterogeneous group of individuals who want to be taken seriously, explicitly addressed and motivated. However, it is not easy to reach and motivate youngsters to take part in participatory processes. They frequently have a busy schedule at school, time-consuming leisure activities and long travelling distances in rural areas with inadequate public transport. One approach to sparking the interest of young people, who are constantly online or on their smartphones, is to use the internet. However, methods other than digital participation are required to foster their involvement: We need a dedicated form of participation that takes account of young peoples' wishes, requirements and ideas in an interesting and attractive way.

In the district of Göttingen Osterode am Harz (a.H.), researchers and regional managers have considered various methods to encourage the participation of teenagers, identifying some concrete results that can be achieved in the target group. In particular, they tested the method of Design Thinking as a form of youth participation. In this paper we consider the background to youth participation and look at how this can be fostered, in particular by investigating the method of Design Thinking. This is found to be successful in motivating young people to get involved in urban design.

#### KEYWORDS

participation, Design Thinking, teenagers, inclusive

#### 1. Introduction and background

Demographic change in the form of an ageing population is changing the structure of society. Furthermore, this trend will reinforce the migratory flow from rural areas to ever more densely populated conurbations. Against this backdrop of an ageing society and the problems this brings, it is essential to ensure that the youngest generation of citizens are not neglected but are encouraged to be self-confident and involved in their communities (Baden-Württembergstiftung gGmbH 2015, p. 9). New opportunities for co-determination are needed, especially for decisions relating to the provision of public services, which are endangered by demographic change. These opportunities have to be adapted to current circumstances. Teenagers are playing an increasingly important role in this process. They are not only consumers but also actors with the power to shape events, and thus should no longer be excluded from planning. Young people must take on new challenges in helping to design the urban environment as well as public services. A central topic of social development in the 21st century is to foster the participation of citizens, children and young people. Hitherto, the focus has generally been on adults rather than young people, who are seen as a difficult target group to reach and motivate. Innovative methods to foster their participation are needed. One such method, which has proven to be highly promising, is Design Thinking. The background to this method is explained in the following, along with details of how it can be applied. A real-world example from the Göttingen-Osterode a.H. is presented to confirm the success of this method in actually involving young people in the planning process. The aim of the article is to elucidate the use and benefits of Design Thinking when applied to public planning processes.

#### 2. What is participation?

Participation is a recurring theme in the political, administrative and public arena. Over the years it has attracted varying degrees of interest and popularity (Stange 2013, p. 13). Clearly, citizens wish to have a say in public planning, in urban developments or projects and in related decision-making process. They demand the right to veto, to protest or propose (Nanz & Fritsche 2012, p. 9). What remains unclear, however, is the extent to which this involvement takes place or should take place. While some people are satisfied when they are regularly informed about ongoing processes, others want to participate in procedures and exert influence (Nanz 2017, p. 9). Citizen participation, however, should be seen as a discourse, i.e. an ongoing process that will not necessarily lead to a clearly voiced decision (Sommer 2015). It implies an opening of planning and policy processes to civic participation through

information, participation and cooperation (Selle 2004).

In Germany, legal regulations for citizen participation are specified at all procedural levels, for example in the following ordinances:

-§ 3 BauGB (Building Code)

-§ 1 Para. 3 SGB VIII (Social Code)

-§ 8 Para. 1 SGB VIII (Child and Youth Welfare Act)

-country-specific municipal ordinances.

Depending on the viewpoint of the actor, whether politician, public planner or youth welfare officer, participation will be understood in different ways. Generally speaking, we can say that participation refers to the active participation of citizens in the handling of common (political) affairs or, indeed, the active participation of members of some organization (a group or association, etc.) in the common (organizational) affairs. It implies the involvement of people in political decision-making processes, in particular in elections and referendums. In a legal sense, participation refers to the involvement of the public in administrative decisions (Schubert & Klein 2001). In this context, Kaase emphasizes the voluntary nature of participation: First and foremost, citizen participation encompasses all activities that citizens undertake on a voluntary basis to influence decisions at different levels of the political system. This is understood as instrumental, goal-oriented action in the sense of participation in the political process of opinion formation and decisionmaking (Kaase 1995, p. 521).



**Figure 1**: Level of participation Source: Own representation after Arnstein (1969, p. 216 ff) Participation can be broken down into a number of different levels (as shown in Figure 1). Here we borrow from the eight-step model devised by Sherry Arnstein to reveal the difference between genuine optimal participation and something that merely masquerades as public participation. The ladder illustrates the power and powerlessness of people: Each of the eight rungs corresponds to a different level of citizen power to influence the end product. According to this model, citizen control is the highest level of authority that can be achieved, namely when citizens are fully in charge of a policy or plan. In contrast, the bottom rung of the ladder is described as manipulation, the lowest level of public participation, also called *non-participation*. Here the public and an outside observer are manipulated into thinking that public participation is in progress (cf. Arnstein 1969, p. 216ff).

In Arnstein's model, only three of the eight specified forms of citizen participation are instances of genuine influence exerted by all participants. Accordingly, the other forms merely pretend to pursue this goal. Although they enable participants to formulate their own views and ensure that these are heard, they do not guarantee that views and demands are actually taken into account in the decision-making process. These forms of participation thus lack penetrating power, since the decision-making authority is located with the corresponding rulers. Only in the three top rungs of the model do participants actually have the opportunity to make their own decisions and exert influence on the final decision-making process. For this reason, the top rungs of participation in this model, namely *partnership, delegated power* and *citizen control*, are classified as *degrees of citizen power*. The possibility of exerting influence is relatively high, even if they do not accord a leading role for citizens (cf. Elsmann 2017, p. 115ff).

In every participation process, it is unclear whether the aims of the participants will be implemented in concrete decisions. Not all citizens can participate in every decision-making process. In large cities, in particular, this is impossible for a range of factors: The expense and time required to ensure participation, the number and distribution of the population as well as their diverse interests, etc. Moreover, for a variety of reasons, not all individuals wish to be permanent participants<sup>1</sup> (Herrmann 2002, p. 16). Ultimately, the term *citizen participation* implies that, through an act of political and administrative will, citizens are given the chance to actively participate in decision-making and planning activities. In addition, it implies that citizens are accorded sufficient power to influence decision-making and shaping processes. Especially with regard to child and youth participation, this means that part of the power of sovereignty over one's own lifestyle is transferred from adults to children and adolescents (Fatke & Biebricher 2006, p. 26).

<sup>1</sup> Due to a lack of time, interest or motivation or a (temporary) surfeit of participation measures, etc.

Here it is important to stress the relevance of Arnstein's model, which was developed more than 40 years ago. While acknowledging its limitations, we can say that this approach is still relevant today in discussions on participation. Indeed, numerous subsequent papers on the topic have referred to Arnstein's Ladder of Citizen Participation, for example Cornwall (2008), Stout (2010) or Collins and Ison (2006). This ongoing critical examination of Arnstein's Ladder reflects the continued interest in the issue of participation. At the same time, it also confirms that no magic formula has been found to ensure successful and effective participation in decision-making processes in the fields of politics and planning (Elsmann 2017, p. 116).

#### 3. State of research

In recent years, there have been a number of technical and scientific discussions on the subject of participation as well as research and practical projects (best practice examples are particularly popular). Despite the existence of some pilot projects, we can basically say that various theoretical approaches which have been devised have not yet been adopted in day-to-day practice. There has certainly been no attempt at the structural anchoring of participation. Similarly, there is a dearth of independent and coherent general concepts (Stange 2013, p. 13).

Hitherto, participation has been understood as adult participation, especially in urban development research. The participation of different target groups has been viewed as irrelevant not only in practice but also in research. On the one hand, we have scientists, who can contribute their knowledge, (research and professional) experience and expertise. On the other hand, we have citizens, children and young people, who wish to contribute their opinions, expectations, specific experiences and value orientations. Scientists can use the knowledge gained in this way to analyze the processes, plans and procedures and, if necessary, further develop, improve or revise these. Hitherto, however, these participatory elements of scientific communication have often been rather neglected in Germany (Science in Dialogue 2011, p. 9). The participation of children in science has generally been a rather marginal area, with much research still to be done. Indeed, there have only been a few serious attempts to carry out online participation processes with young people (see Ertelt 2012, p. 82).

The rare instances of children's participation are currently related to municipal planning, specifically urban planning and (re)development such as traffic planning (the design of traffic routes, cycle paths and the safety of school routes). Participation also takes place in schools or in day-care centres. One exemplary area for the participation of younger children is in media and cultural work, for example in video projects, on various children's news channels or the self-organized design of websites by older children. Here the focus is on learning effects relevant to pedagogical research that result from such procedures as well as their influence on future development (Stange 2010). There is no doubt that this field suffers from a lack of investment in research. Young people, in particular, are hardly addressed as a field of research, resulting in large gaps in this topic.

#### 4. Participation as a part of 'Inclusive Urbanism'

It is important to clarify what we mean by 'young people'. For some experts and actors, these are simply teenagers, i.e. youngsters aged between 13 and 19 (Von Alemann 2006, p. 9f). Under German law, a young person (*ein Jugendlicher*) is defined as being between 14 and 18 years old (JGG 1974). Also the age of majority in Germany is 18, as stated in §2 of the German Civil Code (Bürgerliches Gesetzbuch [BGB] 2002). The target group in the investigated case is between 15 and 18 years old.

Clearly, 'youth' does not define itself but rather is determined externally by older social groups. This definition becomes increasingly difficult as the social group of young people becomes progressively complicated and multi-layered (Von Alemann 2006, p. 9f). Often we find hidden resistance and reservations on the part of politicians and administrators to the participation of young people. Sometimes, however, the level of participation is similar to that of adults: There is the assumption at the political and administrative level that children and young people should and want to be involved in all topics. However, this view is, generally speaking, neither correct nor effective. Young people - as well as adults - are not interested in everything around them, especially if they see no direct connection to their lives or if longer periods of time are involved (Stange 2012a, p.22). In addition, many decisionmakers and planners regard young people as more likely to disrupt the technical process than enrich the decision-making basis (Fürst & Scholles 2008 p. 163). While youngsters are almost always affected by political decisions, they rarely have the opportunity to influence them. It is essential that they be accorded the right to express their positions within the social debate about the future, and play an active role in shaping the community (Siefken et al. 2013, p. 1). Yet many actors see the participation of young people as a highly costly and uncomfortable exercise. That is why they are so often excluded from the decisionmaking processes around urban planning. Where there is participation, it is in the design and planning of nurseries, schoolgrounds or playgrounds. Yet it cannot be denied that young people constitute the future of any community. For this reason, they must be encouraged to participate in decision-making processes. Participation by children and young people is often viewed by adults as a risky endeavour: Youngsters generally have their own, sometimes unrealistic ideal of participation in social life (Wergin 2000, p. 7).

In addition, some experts believe that public actors are afraid of young people. According to Ertelt (2012), this is related to the binding nature of participation: Actors fear the possible loss of control if young people can express themselves in an uncontrolled and unfiltered fashion. Yet the formation of opinion is a continual and daily process. It is essential to try to deal constructively with the loss of control that is evident, among other places, on the internet. An extraordinarily large number of administrative decision-makers are not in a position to do this. Because of this fear, they are unwilling to allow procedures to be carried out which actually ask young people for their opinion and which are also immediately accessible to the public. Too little trust is placed in young people, and this lack of trust turns into fear (Ertelt 2012. This is perhaps the clearest explanation of why youngsters are so little included in public planning.

If teenagers see that they are not treated as objects or spectators in their own community, but are respected and valued as well as trusted to take on important tasks, this can be regarded as participation (Hüther 2013, p.41). Such involvement in planning processes fosters a sense of inclusivity and the desire for further participation. According to a study by the Technical University of Dortmund, young people participate for a variety of reasons, for example:

-To feel up to date: speedy access to information;

-Due to their own interests or subjective motives: self-concern, financial reward, fun, etc.;

-To receive mutual support: mutual assistance, also to counter bullying;

-To mobilize participation: draw attention to events and launch appeals;

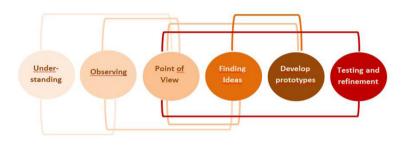
-To experience social relationships: contributing their own opinions and receiving (positive) feedback (Kutscher et al. 2015, pp. 149, 164 & 168).

5. Design Thinking in participation processes using the example of the participation process in Göttingen

# 5.1 What is Design Thinking?

Design Thinking is an approach intended to solve problems and develop new ideas. It is based on the assumption that problems can be solved in a more satisfactory way if people from different disciplines work together in an environment that promotes creativity. The goal is to find solutions that are convincing from the user's point of view. It is neither a method nor a process, but an approach based on the three basic principles: team, space and process (Website Hasso-Plattner-Institut Academy GmbH (2020)). Strictly speaking, Design Thinking is a multifaceted set of methods used to solve complex problems and to develop contemporary products. Nevertheless, it can also be applied to the improvement of services or to encourage participation (see designthinkingcoach). Under this approach, a group of people attempt to jointly solve a problem while considering everyone's needs and motivations. In this way, concepts are developed and tested at several stages (Website yeebase media GmbH(2018)). The Design Thinking approach is suitable not only for the development or redesign of products, but also for services, strategies and internal processes. In the investigated case, the method was employed to foster the participation of young people in Göttingen Osterode a.H.

Design Thinking is a combination of understanding, observation, brainstorming, refinement, execution and learning. The process usually consists of six steps:



**Figure 2**: Steps of Design Thinking Source: Own representation according to Website Hasso-Plattner-Institut Academy GmbH (2020)

The respective steps do not form a fixed sequence running from left to right. Instead, if a step has been completed and a problem occurs, you can go back to a previous phase. For example, if testing and refining have not been done satisfactorily, it is quite possible to start again with the creation of the persona.

The first step is *understanding*. Here values of the brainstorming phase are clearly defined. There are a number of important criteria which have to be adhered to:

- -Be visual, be creative and make sketches;
- -One conversation at a time listen carefully;
- -Encourage wild ideas, later you can be more specific;
- -Defer judgement, accept criticism and rework your idea.

*Observing* is a key element. This means that the group or the groups (each consisting of a maximum of six to seven members) has to consider these issues:

-Who is the target group?

-What makes this the target group?

-What are the interests, disparities and problems?

Subsequently, the group has to develop a common standpoint. This can be used to generate ideas, develop a concept and build a prototype, i.e. a model to vividly illustrate what the realized idea could look like. At first the group has to note all kind of ideas without discussion. The ideas are ranked in the next step and assigned different priorities (based on feasibility, effort, prospects of success, demand, etc.). These ideas are fixed in a concept.

PROJECTIDEA:		PROFILE
Descritation	Daft.	Who is in charge and who finances?
	-	How does city/region/actors benefit?

Figure 3: Profile template

PROJECTIDEA:		PERSON
Name Age Place <u>of residence</u>	<u>Draft</u>	What does her/his social milieu look like?
Hobbies		
	What does he/she do there?	
How often in she/he there?		Why is she/he happy when he o she is there?

Figure 4: Template Persona

For further planning it helps to create a persona, as in this example. A persona is a representation of the people who will in the end visit or use this realized concept. This makes it easier to place yourself in the position of the

target person (shown in Figures 3 and 4). When this is completed, prototypes are developed from the concept. A selection of different materials can be used to construct models, for example Lego bricks, cardboard, paper or papiermâché, modelling clay or polystyrene. There are no limits to creativity: The more visually convincing the prototype, the better.

When the group decides the prototype is finished, it has to be tested. That means that the group has to introduce the prototype to other groups, people or experts. Then the Design Thinking group(s) get feedback, which is incorporated in the model before presentation to elicit further feedback. This process is repeated until the developers are satisfied. It is important to understand that the prototype can never be 'perfect' and thus the moment has to be chosen when it is considered 'finished'. The developer should not forget to: -Aim for quantity;

-Stay on topic;

-Build on the ideas of others.

It is essential to ensure that the teams (each with a maximum of six people) are interdisciplinary. People of different ages, social and national backgrounds, educational attainment, etc. ensure a large range of experiences as well as background knowledge. With their different talents and creativity in a wide variety of fields, the problem can be approached from diverse perspectives. Creativity is encouraged by concepts for mobile working: Standing, running, sitting on dice, writing on whiteboards, etc. Everything is possible and allowed (Website Hasso-Plattner-Institut Academy GmbH (2020)).

The method of Design Thinking takes into account the special needs and means of communication of young people in various ways:

-By offering young people a variety of opportunities to develop and present ideas. They can develop their creativity, promote it and show their talents.

-By encouraging a lively exchange with other groups of youngsters, all of whom are involved for the same purpose. They have a lot in common and can learn from their differences.

-By developing things offline that can later be edited, presented and discussed online. Young people today are on the move, both analogue and digitally. This is supported by Design Thinking.

-By giving them the opportunity to discuss their ideas directly with experts. This gives them direct feedback, which they can accept or reject.

-By providing some tangible results. Other formats merely create sketches, pages of notes or flow charts with illustrations. Design Thinking creates something that can be presented to everyone in a vivid way.

-By encouraging them to have fun.

#### 5.2 Youth participation in Göttingen with Design Thinking

According to forecasts, all the municipalities of Göttingen Osterode a.H. will shrink by 2025. Only the city of Göttingen could emerge unscathed from the process of stagnation: As a major centre, it possesses functions appreciated by the population, who do not wish to be cut off from valuable urban services. The further away a community is from the city of Göttingen, the more likely it is to shrink (Bertelsmann Stiftung [2010], p. 9).

It is not surprising that when the total population shrinks, the number of children and young people in the region also decreases. Indeed, the impact of the general population decline can hit specific age groups the hardest: Here the number of 0 to 10-year-olds is forecast to decrease by an average of 21% and the number of 10 to 18-year-olds by as much as 41% in the period 2010-2025. This can be largely attributed to the shrinking maternal cohort, in particular the first generation of women to have had access to the contraceptive pill (from the second half of the 1960s), resulting in fewer births. This results in the underutilization of infrastructure, a problem which requires municipal action and, ultimately, structural adjustment (Waibel 2010, p. 7).

Therefore, a major concern of the communities in Göttingen Osterode a.H. is to retain young people in the region or encourage them to return. In order to convince teenagers of the benefits of living in their community, it is necessary to know what their wishes and needs are. This is precisely where approaches to encourage participation, such as Design Thinking, have a vital role. Clearly, participation is the only way to spark the interest of young people and persuade them to remain in their community.

The problem with this method, as with most other participation methods, is how to persuade young people to take the initial step to get involved in Design Thinking. In Göttingen, it became clear that schools have to be approached in order to make initial contact and motivate teenagers. Specifically, a workshop was offered in a school auditorium. The participating young people thus avoided any extra trips to another location; furthermore, the schoolchildren were exempted from lessons for the duration of the workshop. This proved to be a decisive motivation for them to get involved in the first workshop. Once the youngsters became convinced of the method and the participation process, they voluntarily invested their free time.

# Objectives of the participation project

In the region, it was found that there are either too few young people who use the municipal leisure facilities or there exist groups of young people who could make use of the facilities but do not want to. While the district of Göttingen and city of Göttingen are aware of the low utilization rates of the youth centres, the reasons for this remain unclear. In addition, there is no information on the accessibility of leisure centres by young people, what they do in their leisure time (or would like to do but cannot) and what they would change in their region. The aim of the participation project was to identify the current leisure and mobility behaviour of local teenagers, especially in terms of accessibility. Clearly, in order for municipalities to plan for the future, they first need to know what young people's needs, wishes and ideas are with regard to leisure facilities. This includes investigating the amount of time youngsters have for participation and the extent to which digital media have gained influence on leisure and mobility behaviour (Siefken et al. 2013, p. 1; Stange 2012a, p. 51ff).

While online participation is currently an important approach, it is not the only one. Workshops are suitable for making direct contact with teenagers, clarifying open questions, identifying the persons who are taking care of them and showing that their ideas are well-received. In addition, young people who are less active online attach importance to face-to-face contact. They wish to get to know the people behind the participation project, and thus should be given the chance to participate offline in direct discussions.

For this reason, it was decided to run workshops in Göttingen. Since young people should not just give their input once, but actually contribute to finding a solution, a format had to be chosen which sparked the interest of young people and motivated them to actually deal with the topic on multiple occasions. Design Thinking seemed optimal for this.

According to experts, offline participation should only be carried out in combination with online participation. Therefore, it was decided to supplement the workshop format with an online platform. The aim was to interest young people and facilitate the participation of those who were unable to take part in the workshops due to time constraints or because the travel distances were too great. The online participation as carried out in the model region was a complex approach, requiring detailed description. Unfortunately, this cannot be done within the framework of this article. Furthermore, the online platform can be seen as irrelevant to our particular investigation and representation of the project, and therefore will be ignored in the following discussion.

# The first workshop

The first workshop dedicated to Design Thinking took place on a Tuesday morning in February 2018 at a vocational school in Osterode a.H. Some of the 19 young people (five girls and 14 boys) were driven by youth workers to the workshop location in the morning and brought back in the afternoon. Otherwise, those who go to schools in other communities would have found it difficult to reach the venue, as public transport in rural areas of the region is poorly developed. The fact that school principals exempted these teenagers from classes proved to a great motivation to participate.

Initially, the participants were given some information as well as an out-

line of the goal by a regional manager and the author of this article. The aim was to help the young people understand the problems in the region, point out how they can get involved and exert influence as well as what contribution they can make to improve the leisure facilities and their accessibility. In addition, they should develop a general awareness of the problem of accessibility and the needs of their leisure facilities. As a result, three groups were formed to develop concepts, resulting in the following main ideas:

-To establish a cinema for foreign-language films in Osterode a.H.;

-To change the bus times to better suit the school schedule and introduce a new tariff structure;

-To create an official cycle route for mountain bikers.

The ideas were elaborated by means of a specific concept and the construction of a prototype, as shown in Figure 5.

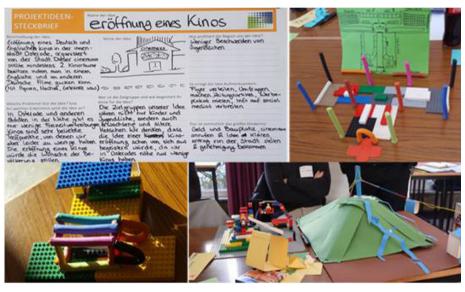


Figure 5: Prototypes and Concepts]

Upper row: concept and prototype cinema; lower row: prototype bus connection, represented by a bus stop as well as the mountain bike route.

Source: Own pictures

The typical feedback steps of Design Thinking aimed at criticizing the concepts were conducted in a balanced and constructive fashion. The participants enjoyed developing concepts, building prototypes and talking about these. Moreover, they took criticism seriously, revising their concepts and prototypes in preparation for the second workshop. The approach of Design Thinking was very well-received by the participants as well as by decision-makers such as the mayors of Osterode a.H. and Bad Grund, who were invited to attend the later workshop and expressed their approval of the developed ideas. One mayor, an enthusiastic cyclist, promised the young people his support. After the workshop, he invited the youngsters to his office to discuss possible routes, land ownership, financial issues as well as likely hurdles and next steps (Protocol Workshop on Leisure Behaviour and Mobility 2018, Osterode am Harz).

#### The second workshop

Another workshop took place in April 2018 in Dransfeld Community Centre to discuss the feasibility and implementation of the prototypes with experts. Also held on a Tuesday morning, some of the young people were once again brought by car by local youth workers. Travel time from the youngsters' homes to the workshop locations was one hour in certain cases. It would have been even more complicated to make the trip by public transport. 12 youths (two girls and ten boys) from the first workshop took part in this second workshop; the other seven did not take part due to time constraints or because they were no longer motivated or interested in the topics. Experts, youth workers, municipal representatives and an external moderator were also present. The author of the article also supported the young people at this workshop. In this case, the invited experts were persons with particular knowledge of the developed topics, in particular with experiences from previous projects or their professional activities. A representative of the Zweckverband Südniedersachen as well as a representative of the Bikepark Bad Salzdetfurth and local youth welfare officers took part in the workshop.

The young people discussed their concepts with the invited experts. Even though some of the latter made critical comments, the young people were happy to engage in discussion. At the same time, the experts made suggestions as to how negative aspects could be resolved, named contacts and treated the young people as equals. Discussions among the young people were also fair and objective. In the meantime they had become well acquainted, and were very friendly and respectful towards one another. There was no one left who showed such a lack of interest that it seemed he or she was only present because of the cancelled school lessons. The young people were encouraged by the experts' praise for their mostly well thought-out concepts, which made them want to continue working after the workshops (Protocol on Workshops on Youth Leisure Behaviour and Mobility 2018, Dransfeld).

# Results from the workshops

The workshops were an interesting and successful experience for all teenagers. They learned that if their ideas are worked out concretely, are rethought and well presented, they can exert influence and foster change. They noticed that their role in the municipality had previously been small and largely ignored. In this way they felt excluded. Nevertheless, the workshops showed them that when they come together and bring adult actors on board, they can really make a difference.

*Cinema with foreign-language films*: this group was forced to abandon the project due to the burden of schoolwork and the difficulty of the topic. Despite the support of the Göttinger youth welfare, the two young people were unable to implement their concept.

*Change of the bus times*: this group developed a proposal for a new tariff structure for the local transport network and submitted it to the responsible Zweckverband Südniedersachsen (ZVSN). Price proposals flowed into scenarios and measures of the new tariff report at the ZVSN. The corresponding report was published in the summer of 2019.

Official cycle route for mountain biking: this group continued to pursue its developed concept. The participants were supported by the local mayor as well as by the newly founded Mountainbike–Schul–AG. Among other things, a cyclist lobby has already been established and some routes have been planned. In the meantime, however, these young people have finished their schooling and will soon graduate. Therefore, they have no more time or interest to work on their project (status: 4/2018)

# 6. Conclusion

Participation is a very important theme and a necessary citizens' right (Eisel [no year], p.271 ff). Nonetheless, youth participation is an unpopular subject in public planning. The involvement of children and young people is often seen as risky by adults, who have their own, at times unrealistic, idea of the correct level of participation of youngsters in social life (Wergin 2000, p. 7). Young people are excluded from public planning processes for a variety of reasons such as fear of their input or because of limited budgets, time or personnel. In addition, teenagers are often not trusted to be able to develop ideas for the public sphere that can actually be put into practice. However, the case study of youth participation in Göttingen Osterode a.H. shows how the approach of Design Thinking can be used to encourage young people express their ideas in a creative, structured and involved way. In this case the teenagers developed well thought-out concepts, which they were happy to revise and which proved highly realistic. These concepts were built as prototypes and discussed with experts. Subsequently, the prototypes were adapted until they were actually worth implementing.

The attendance by mayors at one workshop gave a clear indication how this type of participation is received by key players: The mayors were not only impressed by the ideas of the young people but also by how the collaboration was so structured, thoughtful and respectful. There was a calm, pleasant atmosphere in which criticism was expressed and accepted.

Due to limited time and the approaching graduation from school, one project ground to a halt before it could progress to the final stages. Yet there is little doubt that Design Thinking is a very good method to foster the participation of young people. Initial ideas can be generalized, discussed and revised until they are ready to be presented to municipal authorities in a comprehensible manner. Design Thinking is a target-oriented method to get young people involved in urban design. It allows participants to develop, present, critically discuss, revise and implement ideas within a short period of time. These are working steps that have previously not been entrusted to young people. The workshops in Göttingen Osterode a.H. persuaded core actors from the administration that they do not need to be afraid of young people and their ideas.

In order for Design Thinking to be utilized effectively in public participation processes, it is necessary that the method and its application be well understood. Currently, this know-how is only available in a few municipalities.

It must also be recognized that, despite effective participation methods, young people must be taken "by the hand" and given sufficient support. They cannot implement their ideas on their own. Yet the participation of teenagers must be encouraged if they are to remain in their local communities: Involvement not only generates ideas but also encourages participants to view their place of residence positively and develop or increase a sense of home. In this way, the mentioned challenges of emigration, undersupply, demographic change, etc. could be overcome by many municipalities.

Future research projects on Design Thinking should primarily focus on how to increase motivation to participate and make contacts. Clearly, it is a huge problem to reach and motivate young people, who often have many interests and limited free time. Here the involvement of schools in participation processes can be a great help, as pupils spend more than half of their day in school. They will not lose any of their valuable free time if participation projects are organized during school hours. However, it can be a problem to convince schools to cooperate. Therefore, the question remains how young people can otherwise be contacted and motivated.

Based on the experiences from Göttingen, the following recommendations can be made for the further application of Design Thinking: -As part of the participation method, it is important to foster good relations and exchange between young people. They should have sufficient long breaks, during which they can have informal conversations with each other. -Good moderation may be required in those cases where there is not an even balance between extroverted and introverted youngsters. Otherwise, it can happen, for example, that self-confident boys can dominate the conversation at the expense of quieter girls.

-It is vital to get schools on board. If young people are enabled to participate in school and during class time, this will boost motivation enormously as they do not have to give up any of their leisure time and have no extra trips to make.

-Young people have to be met at eye level and are very results-oriented. If some ideas are entirely unfeasible, the youngsters must be given a comprehensible reason why they cannot be implemented. Of course, some ideas can simply be revised, whilst others have to be replaced.

-Under Design Thinking, every participation process is unique. Young people are such a heterogeneous target group that each participation process must be considered individually. The results will depend on the age of the youngsters, their social environment, the type of school, the gender balance, the level of creativity, the balance of introverted or extroverted individuals, the general mood, the developmental level, etc. Flexibility is called upon to deal with the range and variation of factors in the participation process.

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