PUBLIC STEERING OF PRIVATELY OWNED NON-PROFIT SPORTS FACILITIES

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Abstract

This short paper discusses how municipalities can steer privately owned sports facilities. Firstly I analyse why steering of privately owned facilities is an interesting subject. Secondly I discuss what the advantages and drawbacks of using different approaches for steering sports facilities are. Finally I discuss the methodological challenges of measuring activities in sports facilities – and take a closer look at the advantages and drawbacks of using manual and thermal techniques for registering activity.

Introduction

Analysis of how the public sector in the most efficient manner can steer different public institutions has been comprehensive. However this has not been the case regarding sports facilities, which are surprising in a Danish context when you look at the scope and scale of the public funds, paid to sports facilities. The public sector in Denmark (with app. 5 mio. inhabitants) uses more than 400.000.000 EURO on supporting sports facilities and more than 80 % of the funds used by Danish Municipalities on the field of sport is used to sports facilities (Ministry of Culture, 2009). Furthermore the number of registered sports facilities is more than 3600 - more than the number of public school and day-care institutions in total (Rasmussen, 2012). Finally several research projects on sports habits shows that they are changing in a manner where the traditional sports facility becomes less relevant (Pilgaard, 2009; Laub, 2012) and that the maintenance-level of Danish sports facilities is insufficient (Lokale- og Anlægsfonden, 2011).

The challenges to the sports facilities are furthermore stressed by the fact that due to the financial crisis and demographic changes the public sector experiences an increasing burden on their abilities to fund the public sector in general. Both elements put the financing of the public sector under strain as lower growth rates and a higher ratio of persons outside the workforce in relation to persons in the workforce both results in lower tax income and higher public expenditures. The possibilities of municipalities to support sports facilities are on that background declining.

Hence sports facilities face several challenges but we do not know how the main contributor to them can support them best. The main contributors are the Municipalities, which support the sports facilities with 70-80% of their turnover (Rasmussen, 2012). On that background it is relevant to discuss and develop knowledge and models that can be used to develop better public steering of privately owned sports facilities.

Background

My point of departure in this short paper is a focus on how steering can function in relation to the sports hall which typically consist of a handball court on 20 X 40 meters. This is the most typical indoor arena in Denmark and in large parts of Western Europe. In Denmark the main user of this type of sports facility
is voluntary association’s that typically can use the facility for free or by paying a minor fee due to public subsidies of the sports facility.

The paper takes its point of departure in my own ph.d. project that hopefully will contribute to new knowledge about how municipalities can steer sports facilities in an efficient manner.

Little attention has so far been paid to how municipalities can heighten the efficiency of how they use their funds when it comes to sports facilities. The research question of my research is on that background: "Which advantages and drawback does different methods of steering privately owned sports facilities result in when the aim is to achieve high percentage of usage and efficiency”

High percentage of usage is defined as number of busy hours, number of users and the percentage of sports court in use. Efficiency is defined as percentage of usage seen in relation to the amount of public funds invested.

The study is furthermore focused on the privately owned non-profit sports facilities. The reason for this focus is twofold. First of all the sports halls in the Municipality of Faaborg-Midtfyn where this study takes its point of departure is primarily privately owned sports facilities. Secondly a large proportion of the indoor sports halls in Denmark are privately owned (Ministry of Culture, 2009) and the results from this should hence be applicable to a larger number of facilities.

**How to steer sports facilities?**

The question of steering of sports facilities in a Danish context is to some extent controversial. Especially to talk about steering of privately owned sports facilities is controversial as private non-profit sports facilities can be seen as a part of the voluntary. As other parts of this sector this type of sports facilities operate on a non-profit basis and they rely on voluntary efforts from the members of the board and from the registered voluntary associations that are using the facility. But the voluntary sector is not familiar to steering due to the fact that there is a longstanding tradition of the municipalities not interfering in the way that the voluntary associations do their job (Ibsen, 2006a).

The question of steering should hence also be seen in this context: Namely that there is no tradition of steering – and that the logic of the field of voluntary associations collides with the idea of steering.

**Different steering approaches and expectations to behaviour**

In many Danish Municipalities the level of subsidy targeted at supporting sports facilities are by far above the level that is mandatory by law. This makes it possible for the Municipality to design and implement different steering models without jeopardizing the question of legality.

But it does not necessarily follow that the way the sport facility is subsidised is through number of hours spend in the facility. While some sports facilities is subsidized through a general subsidy that is not
dependent on how hours is used in the sports facility - other sports facilities is supported through a subsidy pr. hour spent in the facility.

Given that the way the steering is conducted relates to which approach is chosen as the point of departure for steering, a relevant issue is to discuss how different ways of thinking about steering relates to steering of sports facilities.

Inspired by an overview from Kjær and Burau (2008: 267) it seems to me that it is possible to differentiate between three ways of talking about steering in this context:

<table>
<thead>
<tr>
<th>Type of steering</th>
<th>Market (New Public Management)</th>
<th>Network (Governance)</th>
<th>Hierarchy (Budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Efficiency through</td>
<td>Competition</td>
<td>Participation</td>
<td>Bureaucracy</td>
</tr>
<tr>
<td>Power</td>
<td>Spread throughout the market</td>
<td>Fragmented</td>
<td>Visible and central</td>
</tr>
<tr>
<td>Role of state</td>
<td>Decides market-boundaries</td>
<td>Influence network-boundaries</td>
<td>Control mechanism</td>
</tr>
<tr>
<td>Unit of subsidy</td>
<td>Number of busy hours</td>
<td>Combination of busy hours / basic funding</td>
<td>Basic funding</td>
</tr>
</tbody>
</table>

I will use this brief overview to further analyse the potential consequences of applying political steering using one of these three approaches and the aim and tool mentioned above – namely that of realized busy hours.

**Steering through the use of ‘New Public Management’**

According to Goldfinch and Wallace (2010) some of the defining characteristics of the New Public Management-way of steering is:
- Motivation based on financial incitements
- Customer-focus
- Quasi-market mechanism to imitate market competition

It is imperative from a New Public Management perspective that the steering is based on a linear relationship between hours used in the sports hall by voluntary associations and the subsidy from the public sector. The idea is that this gives a clear incitement to maximize efforts to heighten the activity
level in the sports facility and therefore introduces *competition* between the sports facilities in order to attract new registered voluntary associations as *customers* and where the different sports facilities work hard to attract new activities from the voluntary associations to the sports facility. The *power* is hence distributed to the different registered voluntary associations who can choose which sports facility they want to use.

However the number of sports facilities and voluntary associations are limited. This is due to the fact that the Municipality decides whether the association falls within the acceptable boundaries for being eligible for public subsidy and decides to what extent they want to support the different sports facilities. The Municipality in that sense sets clear *boundaries for the market*. Furthermore research has shown that persons travel a relatively short distance to their primary sports facility (Limstrand, 2007). The combination of a limited number of customers and a limited distance the customers want to travel seem to indicate that on that background it is reasonable to argue that there is a quasi-market mechanism that results in *competition*.

But there is no guarantee that this is what actually happens when such a steering is implemented. It is disputed whether financial subsidies has the expected consequences (see for example Hood and Peters, 2004). Some is arguing that financial incentives does indeed lead to higher level of intrinsic motivation and therefore leads to higher level of goal accomplishment (Andersen, 2006). This is also named the ‘crowding in’-effect, which means that the management, board and voluntary associations will increase the number of busy hours in the sports facility due to an increased effort to fill out empty slots and increase the number of persons that uses the sports facility. However others have argued that using financial incentives is not efficient (Frey, 1997; Frey and Oberholzer, 1997) – and that you need to be especially cautious when financial incentives is applied to an area where activities rely on voluntarism (Frey and Goette, 1999). This effect is named the ‘crowding out’-effect which occurs when the management, the board and the voluntary associations experience a drop in intrinsic motivation due to the ‘economysation’ of their efforts which results in fewer busy time slots.

**Question for presentation:** Is the expectations to NPM-steering sufficiently developed and how can they be developed and elaborated further.

**Steering through the use of ’Governance’**

The term ‘Governance’ has many different meanings and connotations. Here I will use it following Pollitt and Bouckhart (2011: 21f) who use governance as a term for including several different actors in the process of making and implementing policy. The focus of Governance is hence in this context on including the relevant partners around the facility in a collaboration focused on increasing the level of busy hours in the facility. The Municipality can influence who the *relevant partners* are by indicating that the obvious partners of the sports hall are for example the registered voluntary associations, local institutions (schools, kindergartens etc.) and other local interest groups. Through dialogue, deliberation,
participation and innovation the idea is that these groups together can heighten the activity level in the sports halls, which in the end will result in more busy hours and a higher percentage of use.

Hence seen from a ‘governance’-perspective it is important that the public subsidies help include new partners in achieving higher activity levels. Power is seen from a governance perspective fragmented and it is hence decisive that new partners are included in the network around the facility. It is expected that introducing new partners around the facility help facilitate innovative processes that leads to new ways of getting new activity in the facility (Torfing and Sørensen, 2011).

A certain degree of linearity between subsidy and hours sold is not per se any problem in relation to ‘governance’-steering but it is on the other hand imperative that the steering also includes other initiatives that are to support and initiate a creation of a ‘policy’-network around the sports hall.

A critique of the governance approach to steering has been that it often does not include considerations about power and the power games that can develop within the networks. Others have shown that trust plays a central role in achieving outcome (Klijn et al, 2010). A lack of trust between actors could hence be problematic. If for example the voluntary organisations involved in a governance-oriented steering do not trust each other it can be problematic to establish the relations and co-operations that should result in a higher activity level. One example could be that the voluntary associations are nervous about who will get the best timeslots and on that background have the best chances to attract new members. Such considerations could also result in new partners being excluded – for example new voluntary organisations that would like to gain access to the facility.

Question for presentation: Is the expectations to governance-steering sufficiently developed and how can they be developed and elaborated further.

Steering through the ‘budget’

This approach to steering basically detaches the relation between hours sold and the level of the subsidy received. In this steering model the basic logic is that of incrementalism (Christiansen et al, 2008), where the bureaucracy of the Municipality uses the budget from the year before as the main guideline for next year’s budget. In that way the Municipality and hence controls the sports facility which makes the power visible and central, given that it is primarily a central decision which size the budget of the sports facility should be.

The logic behind this is that the public sector employee – or employee in the public sector like institution like the sports hall from this perspective can be argued to be – does not respond well to financial incitements (Lipsky, 1987). Instead it can be argued that they are focused on delivering a good level of service to the users and to secure the maintenance of the sports facility.
On the other hand when the level of subsidy they receive isn’t influenced by the numbers of hours the sports hall is busy their incitement to increase the number of busy hours seem to be low. When an increasing number of users do not result in an increase in the subsidies there seems the risk that a higher level of activity result in higher levels of expenditure in stead of higher levels of income. This happens because more users result in higher level of wear and tear of the sports hall and higher level of expenditures for water, electricity and heating.

The stability in the budget therefore gives basic funding so that the board and the management can focus on securing a stable situation for the registered voluntary associations that are interested in using the sports hall. Neither the registered voluntary associations, nor the persons responsible for the facility needs to focus on the number of busy hours in the facility. In stead it is possible that they in stead focus on what research has shown is the main interest of voluntary associations in Denmark: Developing and refining the sports for all offers that is the core business of the voluntary associations.

*Question for presentation: Is the expectations to budget-steering sufficiently developed and how can they be developed and elaborated further.*

**Expectations on how the different steering models affect behaviour**

<table>
<thead>
<tr>
<th></th>
<th>Positive behaviour</th>
<th>Negative behaviour</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Public Management</td>
<td>Crowding in effects</td>
<td>Crowding out effects</td>
</tr>
<tr>
<td>Governance</td>
<td>Common goalsetting and innovation</td>
<td>Power games resulting in deadlocks</td>
</tr>
<tr>
<td>Budget</td>
<td>Existing offers thrives and develops</td>
<td>Status quo is maintained and no new users attracted</td>
</tr>
</tbody>
</table>

Positive behaviour is defined as behaviour that contributes to more busy hours in the sports hall and is hence an advantage of that approach. Negative behaviour is defined as behaviour that contributes to status quo or a drop in the number of busy hours in the sports facility and is hence a drawback of that approach.

Initially I have discussed the possible advantages and drawback of different approaches to steering sports facilities. I have also shortly touched upon how some of the challenges can be met. I will now further discuss some of the methodological challenges of having a focus on busy hours. Finally I will explain which methodology I have used for registrering activity and discuss the validity of this method.
In order to steer a sports facility it is necessary to discuss the consequences of choosing a given tool after which the subsidy is given. And in order to choose a tool it is also necessary to choose an aim. These are not innocent choices as the aim and tool are political choices as they influence the choice of tool, which is also a political choice (Salamon, 2001: 11). An aim for a given welfare area is hence not something that is decided in a vacuum.

Given that the public sector is the main contributor to the sports facilities it is an often stated motive for the use of sports facilities that they should be used as much as possible. This ambition can be found on a national level as well as on a subnational level (Ministry of Culture, 2009; Aalborg Kommune, 2010; Faaborg-Midtfyn Kommune, 2008).

How much sports facilities are in used has also been a target for research. But so far research on to what extent Danish sports facilities are busy has primarily focused on whether the sports facility is reserved for use or not throughout the season (Høyer-Kruuse, 2009; 2010; 2011a, 2011b; Nielsen and Ibsen, 2012). This method works well as long as you are interested in whether for example a school or a voluntary association is planning to have an activity in a sports facility. But it seems to me that it is worth a discussion whether this way of registering activity gives the public sector and the management of the facility sufficient information on what is actually going on in the sports facility. My own research so far has for example shown that of 724 registered activities in 12 sports halls in weeks 9 and 13 2012 - 58 of them was ‘no shows’ which is equivalent to a no show ratio of 8%.

Steering on the basis of expected average busy hours hence seem to be a problematic tool since cancelled training sessions, cancelled classes, pre-season cancellations etcetera is not registered correctly. A more precise way of registering activity hence seems to be an important issue if the public funds spent on sports facilities are to be used in accordance to the aim of using the sports facilities as much as possible. It is therefore the point of departure for the discussions below that realized number of busy hours is the most relevant tool as an aim for activity. That means the hours where there are physically active persons in the sports hall.

Hence I have argued that one way of looking at the common aim of steering sports facilities are to focus on the number of busy hours in the sports facilities, which is expected to result in more active citizens and a higher percentage of the sports floor in use. If the steering is a failure there is a risk of seeing a drop in busy hours, fewer active citizens and a lower percentage of the sports floor in use due to a drop in motivation among the employees and the volunteers connected to the sports facility.

The challenges of steering through the use of busy hours
But registering activity by looking at number of busy hours still have some shortcomings. First of all it is
not possible to evaluate how large a part of the sport hall that is actually in use and secondly it is not possible to evaluate whether there are 2 or 200 persons in the sports hall. In the steering models analysed above variations on the number of persons or percentage of sports floor in use would not change the level of public subsidy. But by registering the number of active persons and the amount of sports floor in use it is possible to evaluate whether the different models influence these variables as well. One perverse effect could for example be when using a new public management approach the sports facility could consider that in order to maximize the number of busy hours and hence the level of subsidy they could choose to spread the activities over several time slots. This would increase the number of busy hour, but decrease the number of active persons and sports floor in use every hour – and in the end hence not lead to more active persons.

When budget-steering is applied it will not make any difference economically how many busy hours that is registered as the subsidy to the facility will remain the same. In the case where there is no partial or a direct linearity between number of busy hours and level of subsidy there is no incitement to increase the number of busy hours as more busy hours results in a higher level of subsidy.

One issue that hence needs to be addressed when applying a new public management approach is hence why a sports hall shouldn’t just maximize the number of busy hours through spreading the activity as much as possible through fewer persons in the sports hall and through indicating that there is activity even though the sports hall actually is empty?

To take the last one first that is really a question of ethics. As the public subsidy is given to registered voluntary associations any type of fraud jeopardizes the function of the support system of the registered voluntary associations. Secondly it should be in the interest of the voluntary association that it should only pay for hours it actually uses efficiently (maximum number of active persons and close to 100 % sports floor in use). Thirdly it is in the interest of the sports facility not only to increase the number of busy hours, but also to increase the flow of persons through the sports hall as more person’s increases both the turnover and potentially also the profits. Finally many users throughout the day makes the sports facility an interesting place to be for local citizens and an interesting place to invest in for the local municipality, businesses and sponsors. But whether these reasons is sufficient for achieving the real level of busy hours through manual registration I will discuss further below as I dig further into the question of validation of data.

But when you take into considerations the different steering models and the other reasons for the management of the facility to optimize on not only number of busy hours, but also on number of active in the facility and the degree of sports floor in use, how can the daily management optimize the use of the sports hall? I suggest that in order for the management to navigate through the daily priorities and in order to follow the consequences of the different approaches it is necessary to change the way you register
activity in order to enlighten the discussion about how the management of sports facilities can prioritize between different groups who would like to use the facility.

Registering activity

I have therefore developed a way of registering based on a questionnaire that can be used to gain more in depth knowledge about what is going on in the sports facility. Instead of basing the registration in the questionnaire on expectations of use the registration is instead based on real-life registration. By doing the registration in this manner it becomes possible to evaluate what is actually going on instead of evaluating of is expected to be going on in the sports facility. Further more the registration is more nuanced in especially two ways. Besides looking at whether the sports facility is occupied or not you are also registering how many persons is at the sports facility and how large a part of the sports floor that is occupied. By looking at these numbers you can discuss whether these seem to indicate that you want to change the way the facility is used. If you for example have 5 timeslots where 20% of the sports hall is used by two players there is an obvious chance to optimize the use and potential income of the sports facility. Potentially you can get 4 timeslots available for either badminton or other activities.

I have used this new way of registering activity in weeks 9 and 13 2012 in 12 sports halls. The results of the first round of registration gives some interesting new data on how the sports hall is used. I will give two examples on how this way of registering activity gives new possibilities.

Preliminary results on sports floor in use during observation period

Firstly I have looked at how large a part of the sports hall is in use when it is in use. On one hand the results indicates that large parts of the sports hall normally is in use – but it also shows that there are a large potential in further optimizing the use of the sports halls.

Table 1

<table>
<thead>
<tr>
<th>Area in use during the observation period (%)</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary association</td>
<td>1</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Public institution</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>3</td>
<td>17</td>
<td>37</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>2</td>
<td></td>
<td>5</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Public School</td>
<td>4</td>
<td>13</td>
<td>15</td>
<td>137</td>
<td>169</td>
<td></td>
</tr>
<tr>
<td>Voluntary association</td>
<td>11</td>
<td>36</td>
<td>70</td>
<td>53</td>
<td>245</td>
<td>415</td>
</tr>
<tr>
<td>The sports hall</td>
<td>2</td>
<td></td>
<td>3</td>
<td>5</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Private institution</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>17</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
<td><strong>50</strong></td>
<td><strong>95</strong></td>
<td><strong>73</strong></td>
<td><strong>431</strong></td>
<td><strong>664</strong></td>
</tr>
</tbody>
</table>

As you can see above in 431 out of 664 time slots the sports court is fully used. But the break down of the numbers also show that there is a large potential especially among the registered voluntary associations in order to use a larger part of the sports hall to activities. There are for example 70 time slots where only
60% of the sports court is in use. Furthermore these numbers does not tell us whether it is possible in some cases to make the use of the sports hall more compact and in that way release some time slots. If for example the coach of a children handball team uses 100% of the sports hall for a small number of players just because he or she has the space to do it – but might as well use 40% without any major problems it will be possible to release 60% of the sports court for other purposes.

**Preliminary results on the number of active persons in the sports hall**

Secondly I have looked at how many persons are actually in the sports hall. The results indicate that on average there are many users in the sports hall – but when you differentiate the results on the different user groups you see that it is especially schools that represent activities with many active users in the sports hall.

**Table 2**

<table>
<thead>
<tr>
<th>Number of active persons</th>
<th>0-10</th>
<th>11-20</th>
<th>21-30</th>
<th>31-40</th>
<th>41-50</th>
<th>51-60</th>
<th>&gt;60</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voluntary association</td>
<td>0</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Public institution</td>
<td>16</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Public School</td>
<td>3</td>
<td>71</td>
<td>55</td>
<td>19</td>
<td>10</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>Voluntary association</td>
<td>118</td>
<td>214</td>
<td>62</td>
<td>10</td>
<td>10</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>The sports hall</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Privat institution</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>145</td>
<td>312</td>
<td>137</td>
<td>32</td>
<td>22</td>
<td>15</td>
<td>7</td>
</tr>
</tbody>
</table>

It seems that especially among the voluntary associations there is a potential for optimizing. In 118 timeslots there is less that 10 active users and in 214 timeslots there is less than 20 active users. As we shall se below these numbers seem to be the maximum numbers as the thermal registrations indicates fewer number of active persons. Depending on the activity it is worth considering whether these activities can be put together with other activities or whether character of the activity is such that it is necessary to use a full court even though there are few active persons.

In both of the examples mentioned above the results can be used to optimize the use of the facility. The management of the facility can target different slots where there is a low use of the floor in the sports facility - or where there is a low number of users and consider whether it is possible to heighten the activity level in the facility through new initiatives from the management or through a dialogue with the local sports club or the local school/institutions.
Furthermore it is interesting to see how fee activities the local sports hall manages itself. Only five of the registered activities are developed and run by the sports hall while the registered voluntary associations run 415 out of the 724 activities.

**Thermal validation of data**

I have chosen to use primarily manual registration due to:

- budget constraints. The use of thermal technology is still costly.

- a need for an insight into variables that the thermal technology still cannot grasp. For example gender, age, kind of activity, level of activity, who is organising the activity, degree of sports floor in use. These variables are important in order to gain insight into the consequences of using the different approaches to steering. Furthermore these variables provide the management with important inputs on how to optimize the use of the sports facility.

However in order to evaluate the weaknesses of manual registration I have in collaboration with Aalborg University used thermal technology to validate the manual registrations (Aalborg University, 2012). A weakness in the manual registration is the question of whether the results you achieve really are a mirror of the true activity-level. Manually counting the different activities can result in inaccuracies due to different interpretations from the person who registers activity regarding for example how to count number of active persons or they interpret whether the sports court is 20% or 40% busy. Even though all the different observers have been thoroughly instructed in how to interpret different situations it is still the case that differences of interpretations can occur. Furthermore it has been argued that the different observers might have a tendency to exaggerate the true level of activity, as they are interested in having as high an activity-level as possible in order to convince the Municipality that they are worthy of receiving subsidies. In order to validate the data from the manual registrations I have therefore used thermal cameras to validate the data in two ways:

- By looking at whether there is actually some activity in the sports hall or not

- By comparing the thermal registration on number of active persons in the sports hall with the manual registrations on the same variable.
**Table 3 – thermal validation of data (1)**

<table>
<thead>
<tr>
<th>Time</th>
<th>Term 1</th>
<th>Term 2</th>
<th>Term 3</th>
<th>Term 4</th>
<th>Term 5</th>
<th>Term 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>7-8</td>
<td>12</td>
<td>4</td>
<td>18</td>
<td>24</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td>8-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9-10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11-12</td>
<td>16</td>
<td>9</td>
<td>26</td>
<td>19</td>
<td>24</td>
<td>58</td>
</tr>
<tr>
<td>12-13</td>
<td>15</td>
<td>26</td>
<td></td>
<td></td>
<td></td>
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A methodological note is that the thermal cameras often will have problems to separate the number of users if there are too many of them in the sports hall. Therefore a higher manual count does not necessarily mean that the thermal count is correct. The case is the opposite if the manual count shows no activity while the thermal count registers activity. Above is an example where there is a good correlation between the automatic registration and the manual registration. However there are inaccuracies in the manual registration. For example Wednesday between 21 and 22 there are fewer active persons than indicated by the manual count.

Below is an example of a registration where the manual registration has missed some of the actual activity registered by the thermal cameras.
For example Wednesday from 8-10 there has been some activity that the manual registration hasn’t caught. Furthermore here you see examples on the manual registration registering activity that is not confirmed by the thermal cameras. Since the thermal cameras are very certain in determining whether there are activity going on or not, these incidents must be due to registering activity based on what is expected rather than what has actually been going on.

Even though there are challenges with the manual registration the general picture is that the general registration exaggerates as well as understates the true activity level. It exaggerates especially on the activity on the voluntary associations because the persons making the registrations sometimes register activity that hasn’t actually taken place and it understates the more spontaneous activities because the persons making the registrations isn’t present in the sports halls at all times.

Based on the comparison between the manual count and the thermal registration I will also be looking further into whether it will be possible to construct a method where the manual registrations are revised on the basis of how much the miss the objective target that the thermal data register. One example could be that the validation by thermal cameras shows that the manual registration for example exaggerates the number of busy hours and persons by 5 %. By deducting 5 % of the registered busy hours and persons observed then you should get a more realistic insight into the number of busy hours.
A final remark is therefore that through the manual registration it is possible to gain a more nuanced picture of which activities is actually taking place in the sports facilities than the thermal registration offers - and it gives the management the possibility to assess how it should prioritise between the different activities and in what areas it should be possible to start up new activities.

Concluding remarks on steering and registering activity

The way of registering activity that I have used above gives new information about how the different tools of steering seem to influence what is actually going on in the sports hall. This hopefully opens for some interesting discussions when I have the results of the activities in 2014. For example I will be able to discuss whether different steering approaches seem to influence the composition of what is going on in the sports hall – for example whether the sports hall is running more activities on themselves or whether it continues to be the registered voluntary association that dominates. Other interesting question will for example be whether the relative use of the sports floor has increased, whether the number ac active person in each time slot has increased and how the general development in number of busy hours is.

Together with the results from the qualitative interviews of the managers, chairman of the boards and chairmen of the registered voluntary associations these data will hopefully enable me to argue in a qualified manner on how the causation runs between the different steering models, a change in behaviour and changes in the activities in the different sports halls.

The preliminary results of the registration of activity level, the validation of the data by using thermal cameras and the first round of interviews has raised questions such as:

- To what extent can the sports facilities influence the number of busy hours used by the voluntary associations?

- What kind of bias does the manual registration produce and it is it possible to compensate for this bias on the background of the thermal registration?

- To what extent do the voluntary associations know how the public steering of the sports facility is conducted? To what extent do the voluntary associations care about what the financial situation of the sports facility are and do they see it as their task to help the sports facility or do they take the presence of the sports facility for granted?

- Who will be the primary users in the sports facility? Will it continue to be the voluntary associations or will for example the sports facilities, commercial entrepreneurs or new types of voluntary associations initiate new activities in the sports facilities. And will patterns emerge that can be connected to the different approaches to steering.
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