which already have a strategy can use the results from the BMM to supply their existing strategy with vital information needed for an action plan.

# 5 THE ELEMENTARY PARTICLES. DEFINING A PUBLIC LIBRARY LEARNING ARENA

In our work with the public library as a learning arena, we first focused on dividing the public library's different roles into four different subjects, with Learning Arena being one of them.

Naturally, the background for this division was the Four-Space model presented in the Danish report "The Public Libraries in the Knowledge Society" (Danish Agency for Libraries and Media, 2010). As already shown, the Four-Space model operates with a broad definition of the concept of learning in the public library. The BMM's concept of Learning Arena however, takes on a narrower definition than that of "Learning Space" in the Four-Space model. In our Learning Arena we have a defined target group, which are students attending upper-secondary school, university or college. To achieve even more measurability, we have sought to divide the term "Learning Arena" into even smaller and more tangible entities. This has left us with the hierarchy of terms as illustrated earlier (Fig. 4), and yet another quadripartite:

## B: LEARNING ARENA

B1: Collaboration B2: Room/Facilities B3: Competencies B4: Collection



Fig. 12: The Buskerud Measuring Model: Categories and subcategories of the Learning Arena

Each subcategory is followed by three definitions for potential and three for performance. With 22 subcategories this leaves us with a total of 122 level definitions. The definitions are not yet meant to be universal or to be seen as a national standard for the public library as a learning arena. They are mainly developed to fit the needs of the libraries participating in the local testing of the model. Still, the definitions can serve as a starting point for other libraries who want to try the BMM in developing their institution.

## 6 EXPERIENCES WITH USE OF THE MODEL IN TWO PUBLIC LIBRARIES

Our model was first presented in a manual that was published in the fall of 2012. The model was, and still is, a beta product. Consequently the version presented in the manual is under continuous development. The general response to the manual, along with the input from the two project libraries Ål and Drammen, gave us useful advice on how to improve the model.

The public libraries of Ål (4.700 inhabitants) and Drammen (65.000 inhabitants) tested the Buskerud Measuring Model as presented in the 2012 manual. The two libraries did not test the full range of the model's Learning Arena within the project period. Ål public library concentrated on B4: Collection, while Drammen public Library composed its own selection of subcategories.

Ål library commented that the model graphics were a bit hard to grasp, as they differed from a traditional linear way of thinking. Ål library found the definitions of the subcategory-levels to be the most challenging about the model. What they found, was that not all the contents of the level definitions necessarily fitted their library. So, while they managed to place the library in either the low, medium or high level without problems, they would like to see the definitions being more accurate. On the other hand, as Ål library commented, that would mean that a lot more variables having to be added to the definitions. Ål's conclusion was that "The project has helped the library to develop the collection to facilitate one of our increasingly active user groups. The model itself has - unfortunately - not been used very much as a process tool in the project." This was due to the model being too demanding to easily blend in along with other daily tasks.

Drammen described working with the model as "exciting, but demanding". Drammen had problems with grasping the term "potential", and was, like Ål, puzzled sometimes by the rather wide approach of the definitions. They sometimes felt that the gap between the levels was too large, and improvement hard to obtain. Drammen reported that the Buskerud Measuring Model's "key to success" lays in well composed level definitions.

Both libraries did actually obtain a higher score when they measured themselves after using the model, but we want to use their important input to improve our model right away. In this paper, we have chosen to concentrate the improvement process to the following areas:

- Integration of quantitative data. Increasing the presence of quantitative data in the
  model by integrating the official set of national indicators for public libraries in
  Norway. By attaching numeric values from the national indicators to the Subcategory
  definitions, we hope them to become more clear and easier to use for the libraries.
- User interface. With its different categories, sub-categories, points and measures, the Buskerud Measuring Model demands quite a lot from its users. We therefore want to make the process of inputting data to be as free of friction as possible.

# 7 INTRODUCTION TO NATIONAL STATISTICS AND INDICATORS FOR PUBLIC LIBRARIES IN NORWAY

The National Library of Norway is responsible for collecting and publishing national library statistics for all library types. The public libraries collect data on more than 200 variables. A small range of these variables are made available in the national database run by Statistics Norway as a set of 13 indicators. In addition we have statistics generated from the libraries' local systems used for local library development. Many libraries also use the method of counting the traffic in the library to gain additional knowledge of how their users utilize library services.

By the end of 2009, efforts to develop national indicators for Norwegian public libraries were completed. The indicator set consists of a total of 30 indicators that emphasize the role of the libraries as:

- Social institutions
- Learning resources and learning environments
- · Centres for literature and culture
- · Arenas for cultural diversity



Fig. 13: The 30 National indicators for public libraries in Norway (ABM-Utvikling 2010)

The indicators are partly drawn from existing sources adapted to Norwegian conditions, and partly constructed by the indicator project group. The proposed indicators were published and discussed in an open process and also distributed as a consultation paper in the library field.

The White Paper No. 23 about the Norwegian public library sector (2008-2009) presented in the spring of 2009, expressed the importance of developing robust and adaptable libraries that can provide all residents good library services. The White Paper strongly emphasized the importance of analysis and statistics.

Unfortunately, the library field sees little use of the indicators so far. There is little debate in the library field about the indicators and it may seem that few librarians know how to put them to use. The National Library of Norway has no incitement for the public libraries to start using the indicators and so far there has been little follow up on the indicators from the national level.

## 7.1 Integration of quantitative data into the Buskerud Measuring Model

In this paper we have worked with national statistical data from 2011 for the following indicators; A3. expenditure on media per capita, B1. visits to the library per capita, B3. loans (physical units) per capita, B7. number of participants at events organized by the library, per capita and C4. culture fund media per capita. This is to give an example of the ways in which indicators may be used in the model.

In order to be able to compare similar libraries, it is necessary to divide the municipalities into five different groups according to size. We have chosen to divide into the following groups: +50 thousand inhabitants, +20, +10, +5 and below five thousand inhabitants. Municipalities with less than five thousand constitute more than 50% of all libraries in Norway.

The most relevant correlation we see is between municipal size and number of visits per capita. Number of visits is also an important indicator for libraries as learning arenas. 3,6 visits per capita is the average for libraries with less than 5000 inhabitants. The average in Norway is 4,4 (2011). Smaller libraries will have fewer employees and as a consequence have fewer staff to give relevant guidance and fewer to keep the library open.

C4. Media financed by the Norwegian Cultural Fund, proportion of total additions (2011). The table below shows the extent to which municipality size is important when it comes to dependency on media financed by the Cultural Fund.

Number inhabitants	of	High 25%	score	Medium 50%	score	Low 25%	score
+50 thousand		6-11		15-19		22-32	
-5 thousand		6-34		35-60		60-92	

The most interesting aspect in this table is the close correlation between the size of the municipality and the percentage score of dependency on the Fund. As a consequence, we risk that the smallest libraries are very similar in their collections without being adapted to local needs. The low score in the smallest libraries also indicates that there is little money to spend on books to users needing learning materials.

We have found that the most relevant national indicators to use along with the BMM are:

- 1. A3. Expenditure on media per capita
- 2. A4. Proportion of salary and media expenditure used on purchase of media/access
- 3. A6. Proportion of expenditure used for purchase/ access to electronic resources
- 4. B1. Visits to the library per capita
- 5. B2. Use of net-based services per capita
- 6. B3. Loans (physical units) per capita
- 7. B7. Number of participants at events organized by the library, per capita
- 8. C1. Total opening hours
- 9. C2 Number of full time equivalent staff positions per capita
- 10. *C3 Additions (physical media) per 1,000 inhabitants*
- 11. C4 Culture Fund media (media financed by the Norwegian Cultural Fund): proportion of total additions
- 12. C8. Proportion of library's loan total which comes from own collection
- 13. C10. Proportion of staff members' work time allocated to service to the public
- 14. C12. Proportion of staff members' work time used for school related activities
- 15. D2. Proportion of staff members' work time used for competence building
- 16. D4 Collaboration measures per full time equivalent staff position
- 17. D5 Number of interactive services

We first had to choose which indicators are relevant for which subcategories. Since Learning Arena is our main subject, not all of the 30 indicators are of relevance to us. As shown above, we have chosen to include 17 of the indicators that we found to be most useful in supplying the different subcategories with quantitative data.

The indicators and the subcategories are developed separately, and by different bodies, thus the degree of relevance each indicator has for the subcategory it is combined with, will vary.

# Relationships Indicator/Subcategory

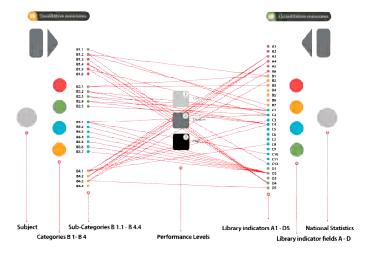


Fig. 14: Relationships between the Buskerud Measuring Model subcategories and the National indicators

In order to say something about the activity of a library we must include both visits and loans. Although these are total figures and include more than the library as a learning arena, the number give an indication of whether this is an efficient and well run library or not. The same applies to the percentage proportion of culture fund media in the collection. A library with a high percentage of culture fund media in the collection, one can assume lack adequate resources in other areas too.

## 8 . IMPROVING THE BUSKERUD MEASURING MODEL'S USER INTERFACE

There are supposedly many ways of making the model easier to use. Anyhow, the goal must be to make it easier for libraries to understand and use the model and the national indicators, but without losing any of its complexity.

At Buskerud County Library we have always had an extra focus on possibilities that web services can provide. One of the biggest companies that offer different web services is Google Inc. Their Google Forms, included in the Google Drive service, has helped us in achieving the goal mentioned above. By adding the BMM's structure of categories and subcategories to the form, the library can answer the large amount of questions that come with the model one by one.

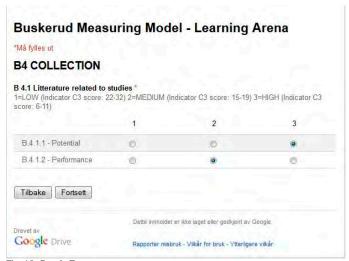


Fig. 15: Google Forms

We are surprised to see how much more inviting the use of the model becomes when presented with Google Forms, even when we have combined with all the additional information from the national indicators. In our opinion, this method of presentation should be considered to help libraries work with indicators in general as well.

Google generates graphical statistics from the answers given in the form. In our example (Fig. 16), the total score of each category is shown, together with the total for the subject (Learning Arena).

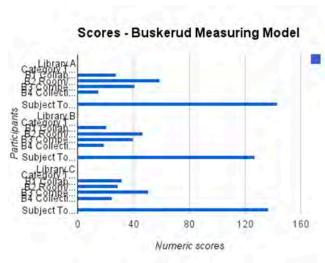


Fig. 16: Google Forms generated graphics

The generated graphics give a rather impressive and complete overview. For larger institutions, watching over numerous branches and/or libraries, the results should therefore be of particular interest.

## 9 CONCLUSION

In order to get a richer picture of the libraries as learning arenas, we needed to enhance the model with quantitative data. We feel that the use of standardized indicators is the right way to go. Unfortunately it is not always neither qualitative, nor quantitative data can give us the whole picture. We believe that the combination of the two leaves you with a more solid basis on which to take further actions and decisions upon.

In the case of our Learning Arena, there were few combinations of indicators and subcategories that was a perfect match. This can probably be seen as a confirmation that to combine qualitative data with statistical data is complex. Our experience however, has been that while the qualitative approach in the BMM needed to become better tailored for each library, the quantitative approach of the indicators might be a bit too rigid in order to suit the actual needs of the library in the process of improving itself.

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