Report from the FP7 project:

Assess Inquiry in Science, Technology and Mathematics Education



Social Network Analysis Method

Method for mapping stakeholder networks

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Summary

This document describes a method for mapping out stakeholder networks and, based on these, selecting members to the National Stakeholder Panels pertaining to the AS-SIST-ME project. It is meant as a brief description of the method, while the implementation will involve extensive collaboration between the University of Copenhagen (UCPH) and ASSIST-ME representatives from each country.

Purpose of the stakeholder network

National Stakeholder Network National Stakeholder Panel Figure 1: The purpose of the SNA method is to create stakeholder networks that can

be used to pick out relevant persons for the National Stakeholder Panels.

According to the proposal, ASSIST-ME will use stakeholder networks to create national stakeholder panels (NSPs). The NSPs will consist of influential stakeholders with a real interest in impacting assessment policy and practice. Members of each NSP will be involved in ASSIST-ME from Work Month 6 and throughout the project by providing advice and professional development on how best to impact policy and practice. An important characteristic of ASSIST-ME is that these NSPs will not result from typical lists of merely the people we know in our respective countries but will rather be based on a common scientific method securing a homogeneous selection process and resulting in a reliable representativity across partner countries.

Person to person influence relations

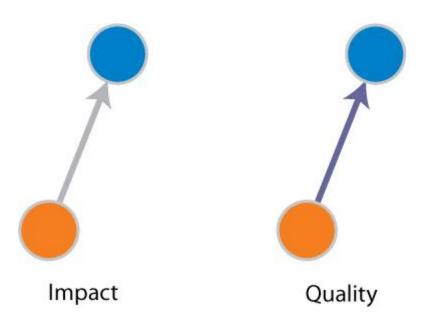


Figure 2: We will map out two different kinds of connections, one pertaining to the influence or impact a stakeholder believes another stakeholder has, and one pertaining to the quality of educational change a stakeholder believes another stakeholder can have.

ASSIST-ME aims at changing policies and implementation of assessment practices for inquiry teaching/learning. The stakeholder networks will map out the people in different organisations - not the organisations themselves - who are influential when making these changes. Policy and implementation are found in different levels ranging from the ministerial level to the school level.

In a stakeholder network, we will map influence by drawing a connection between two stakeholders when one stakeholder finds another stakeholder important to include in processes involving making real changes in assessment practices (both policy and implementation). Thus influence will be determined from connections to and from others in the stakeholder network.

Method for creating stakeholder networks

This section is a short step-by-step description of the method. As we begin to implement the method, UCPH will collaborate extensively with ASSIST-ME partners to accommodate the needs of each partner and modify the method to suit each individual country. The final description of the method will include a more extensive rationale including how it is based in research. Also, UCPH will begin each step before other ASSIST-ME partners and share findings and experiences on the project site.

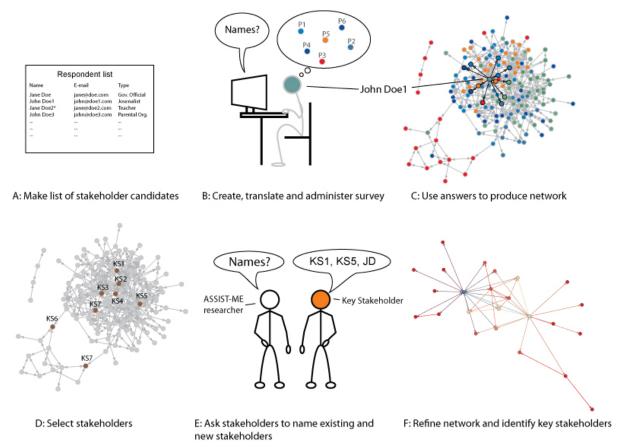


Figure 3: A graphical illustration of the steps in the method. Refer to headlines in the text for elaborations.

A: Make list of stakeholder candidates

The purpose of this step is to create a list of stakeholder candidates to whom we can send a survey where we ask for names of people the stakeholder candidates believe have impact on changes with regards to assessment practices on a school, a local and a national level. Each ASSIST-ME country needs to make a list of stakeholders covering different parts of the society. As a minimum, the list of stakeholder candidates should include representatives from the following spheres of society: The authority that owns the schools (e.g. the association of counties or municipalities), the principals, the teachers (e.g. the teacher union, associations of relevant subject teachers), industry, dominant political parties (or their educational spokesman), media, parents. Other groups can be added according to local needs. The list includes the name, e-mail address and which organisation the stakeholder belongs to (for example the government, the media, teacher organisation). Guidelines for making this list will be made available by UCPH before the actual work begins. In a country like Denmark, we expect the list to be comprised of approximately 500 persons from organisations and businesses with local and national impact, as well as impact on individual schools. Tasks in this step:

 ASSIST-ME partners procure a list of e-mail addresses (mailing lists), names and types of stakeholders.

B: Create, translate and administer survey

This step will result in two products. The first product will be a survey in each partner's language. This survey is sent to the lists from Step A. The second product is the result of the survey: A set of names to the overarching question in the survey of who each of the stakeholder candidates believe have impact on changes with regards to assessment practice on a school, a local and a national level. To reach this goal, UCPH will create an English version of the survey, and partners from each ASSIST-ME country will translate the survey to the relevant language(s) of their country. Also, ASSIST-ME partners and UCPH will collaborate to modify the wording of the English version of the survey to align it with culture of the partner country. Finally, with the guidance of UCPH SurveyXact will be used to administer the survey to the stakeholder candidates on the list from step A in each country.

The crucial part of this step is designing the question of the survey. Consider our *first draft* of the actual wording of the question:

"Which persons do you consider to have impact on changing assessment practices on a school, a local and a national level?"

For each stakeholder candidate the answer to this question is a set of names and their e-mail addresses. Then, for each person they have named, they can indicate whether the person has impact on changing assessment practices on a school level, a local level, or a national level (multiple levels can be indicated for each name). The final country wording of the survey will be dependent on local cultures, but should be general enough to allow administration of a single survey for each country. The tasks in this step are:

- UCPH will create and make preliminary tests of the survey (worded in English)
- ASSIST-ME partners will translate the survey to relevant local languages and send this translation to UCPH.
- UCPH will facilitate ASSIST-ME partners in administering the survey via SurveyXact.

C: Use answers to produce networks

Having administered the survey and reminders in SurveyXact, each partner country as well as UCPH will have access to their set of answers. For each country, UCPH will produce a network of stakeholder candidates. UCPH will share this network through the project site along with a preliminary analysis of the network. The tasks in this step are:

- UCPH will convert survey answers to network data for each country in ASSIST-ME
- UCPH will produce a preliminary analysis of each network.

D: Select stakeholders

One of the outcomes of the preliminary analysis of the network of stakeholder candidates will be a list of *stakeholders*, which hold central positions in the network of stakeholder candidates as informed by social network analysis. In this step, we will focus on



selecting stakeholder candidates with many incoming connections but also with a large diversity in types of stakeholder candidates to which they are connected. However, the selection will be based on a dialogue between the ASSIST-ME partners and UCPH. If an ASSIST-ME partner believes that an important stakeholder candidate is missing from the network, the stakeholder can be included in the new list of stakeholders. We expect the number of stakeholders to be between 50-100 persons. The task in this step is:

• UCPH and ASSIST-ME partners collaborate to produce a list of *stakeholders* from the network of stakeholder candidates.

E: Ask stakeholders to name existing and new stakeholders

The network produced on the basis of the stakeholders may include stakeholders, which have not answered the survey. Also, there might be connections between the stakeholders, which have not been identified with the survey. In this step we want to map connections between stakeholders. We will present each stakeholder the list of stakeholders and have them choose the persons they believe are important with regards to the two categories of impact described in B. They will be able to select between the names on the list and they will also have the possibility supply names they believe are missing. The tasks in this step are:

- UCPH and each ASSIST-ME partner devise guidelines for asking stakeholders about connections suitable for the contexts of that country.
- ASSIST-ME partners ask stakeholders to name other stakeholders.
- ASSIST-ME partners send a list of stakeholder connections to UCPH in a prescribed format.

F: Refine network and identify key stakeholders

On the basis of the stakeholder connections found in step E, UCPH will make a refined network of stakeholders consisting of stakeholders who have been identified as having impact on changes in assessment practices. Steps D and E may have to be repeated to ensure that as many connections and stakeholders as possible are represented in the network, but this decision will be made by each country and UCPH in collaboration. The final network will be analysed in detail by UCPH. Based on these analyses, UCPH will collaborate with each ASSIST-ME partner country to select key stakeholders to invite to the National Stakeholder Panels. The tasks in this step are:

- UCPH and ASSIST-ME partners will evaluate the network to see if stakeholders and connections between stakeholders are sufficiently represented.
- UCPH will conduct social network analyses on the final networks.
- UCPH and ASSIST-ME partners will select stakeholders to invite to the National Stakeholders Panels.