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## **OST World**

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# OST WORLD: RESEARCH CONNECTIONS

AMERICAN EDUCATIONAL RESEARCH ASSOCIATION OUT-OF-SCHOOL TIME SPECIAL INTEREST GROUP

## Q&A: BETTINA DAHL SØNDERGAARD

Next year marks AERA's 100th anniversary. What role has AERA played in advancing youth development research?

Since 2008, the Danish Agency for Science, Technology and Innovation (DASTI), which is part of the Ministry of Education and Research, has run a bibliometric research indicator program. DASTI publishes annual authority lists of journals and publishers through which faculty can earn points: 3 points for a paper in a very highly acknowledged journal (Category 2), 1 point for a medium journal (Category 1), and 0 points for journals not on the list. If there are two authors for a 1-point paper, each author receives 0.5 point. If the authors are not from the same university, each can multiply by 1.25 points. This is to enhance collaboration across institutions. Each subject area has a board consisting of researchers who each year suggests adding or deleting journals on the list, including upgrading or downgrading journals.

Exploring this question, I logged into my university's system to search how many times someone had published within any of the seven AERA journals. Six are Category 2. AERA Open is not ranked. Aalborg University has 3,300 faculty, but the total number of publications in these journals was one! A paper published in 2014 in American Journal of Educational Research, but the paper was not about youth development. I contacted DASTI to get information about how often Danish researchers use these journals, and they kindly send me lists of publications 2009-2013, including overview of how the six journals are ranked in Norway and Finland in 2014. As seen in the table, there are some differences, particularly in Educational Researcher.

	Denmark	Norway	Finland
American Educational Research Journal	2	2	3
Educational Evaluation & Policy Analysis	2	2	2
Educational Researcher	2		3
Journal of Educational and Behavioral Statistics	2	1	2
Review of Educational Research	2	2	3
Review of Research in Education	2	1	2

**“To my surprise, all six journals had zero Danish universities represented. If the publication record is an indicator, then AERA's role is very limited in Denmark.”**

To my surprise, all six journals had zero Danish universities represented. If the publication record is an indicator, then AERA's role is very limited in Denmark. The question is how can any organization advance the development of research? Does AERA want authors from all over the world to publish in its journals? Has no one from Denmark tried to submit a paper? Are the papers submitted by the Danish researchers of poor quality? Or, does the profile of AERA journals not fit with the focus of Danish researchers, and do they ought to, given that AERA is an American organization? Perhaps the OST SIG could produce proceedings of papers presented (and submitted) at the annual meetings. Such proceedings should be with a separate ISSN-number in order to be recognized and easily identified, as well as being put on authority lists; it would aid to advance the research.

**The 2016 AERA theme is Public Scholarship to Educate Diverse Democracies. How does your research support the theme?**

One of the things mentioned by Oakes, Welner, and René in the online description and

invitation to the 2016 AERA Meeting is that research should strengthen public education, as this is one of society's most democratic institutions. One aspect is to "produce scientific knowledge that educators could use to improve large school systems." Having such a goal for one's research can seem overwhelming. How can I, just one person, do something that will have any significant impact?

This question brings me back to a discussion with a former lecturer. We were a class of graduate students all wanting our theses to have a real impact on teaching and learning, but we all became increasingly aware that we had to be very focused and narrow in our research, which was frustrating. How would our work actually have any importance then? The answer we received from our lecturer was that we had to learn to see our research as a 'brick in the wall.' Being just a brick might not sound very heroic, but any wall consists of several bricks. Bricks form a wall, or a body of knowledge, which then would point in some direction and hopefully have an impact.

What is the route from "walls" of research to actual teaching? Teachers do usually not read research papers even if they are about education. The reason is that teachers do not have time for it, they often do not know where to find relevant papers, the language of research papers is aimed at other researchers and are not easily accessible to teachers, and finally, the conclusions of such papers are not easily translated into something a teacher can use in practical teaching. A similar line of reasoning can be made for politicians. This is a shame, since this means that a lot of research, which is potentially useful to teaching and education, never gets out into the world of teaching. Researchers need to disseminate their research in more popular papers, newspaper op-ed's, and textbooks. Another way to do it is to use the research when we teach.

In Denmark, by law, universities are required to provide so-called 'research-based teaching.' It

means that students should get involved with research activities as part of their studies, and university teachers should use their research to inform the content of the teaching. This is an important route, in my opinion. I try to do both. Writing textbooks and more popular versions of own research is a different, and a difficult type of writing, but it is actually an interesting process where I also become a little wiser on what it is I am actually doing.

[You have been actively engaged in OST STEM education research. Tell us about your research and findings.](#)

I have been involved in many levels with OST STEM education and in several countries. Sometimes my involvement has been that of co-organizing events like "Mathematics Circus" for school children on a pedestrian area in the city center of a major Norwegian town with the

["The answer we received from our lecturer was that we had to learn to see our research as a 'brick in the wall.' Being just a brick might not sound very heroic, but any wall consists of several bricks. Bricks form a wall, or a body of knowledge, which then would point in some direction and hopefully, have an impact."](#)

purpose of creating interest in mathematics. The children were involved in mathematical bowling, bingo, card tricks, kite building, and sack race. Many times in both Denmark and Norway, I have

served as a judge in competitions created to foster interest in STEM. One example is FIRST LEGO League where children built robots to perform various tasks and compete in friendly competitions to show both how well their robots performed and to learn how to present their designs and be good teammates. Another example is CEDAR's (Coal Education Development and Resource) Regional Coal Fair in the US, judging mathematics coal-centred school student projects. But other times, the audience in the competitions were not students with a lack of interest in STEM, but rather talented Danish high school students with a high interest in STEM. OST was a way to keep their interest and to develop their knowledge further. Common to all events is that children always appeared to enjoy it. 'Enjoy' and 'learn' however, are not the same thing. The long-term effects of such events are hard to test. Our hope is that, together with others things, they will point

towards students' consideration of a STEM career.

I have also participating in projects where we tried to monitor and assess outcomes. One example is a study of the use of mathematics computer games in an OST activity. Girls appeared to spend less time deciding if a game was worth playing compared to the boys but common for all was that 5<sup>th</sup> grade students appeared more adventurous in trying our more difficult games compared to the 7<sup>th</sup> graders who were more hesitant (Dahl, 2004). For many years, I was also involved with a project organized by Aarhus University called "Nature in the Tent." During the annual town festival, the Faculty of Science put up a tent and had students from the departments disseminate knowledge about their subject. The morning audience were mainly K9 students. In the afternoons, the tent was open to anyone. The first years I was involved as an evaluator of the project (Dahl, 2007), where I concluded that most K9 students were very happy to participate and some of them even experienced so-called "breakthrough behaviors" (Barriault, 1999) but the university students' ability to disseminate their knowledge needed to be improved. The following year, a colleague and I put a three-day workshop in order to help the students. We monitored these students for two years and were able to conclude that even such a short workshop was able to both change the students' knowledge and views of dissemination in an OST context (Dahl & Stald, 2013).

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[Next year, 2016, marks the Out-of-School Time SIG's 10th anniversary. What have been some key trends that have shaped the OST field over the past decade? What should be one key element on the OST research agenda in the next decade?](#)

The OST SIG has aimed to be a place to collect and discuss evidence-based knowledge about how out-of-school time and after-school programs provide a useful context for learning a subject and also how to create attitude toward the subject and other people, as well as to develop talents and creativity in youth of various ages. It has also helped document related issues. One issue is the difficulty in retaining staff in such programs. We have also discussed what learning takes place. At various points we have discussed how OST relates to informal learning, and we have collaborated with the informal learning SIG to the benefit of both. At the same time we have found it beneficially to keep the SIG separate in order to stay focused. Something I personally think could be an interesting angle for the next decade is to become even more international in order to exchange knowledge for the benefit of all. OST is something done in various ways in different countries. Both the differences and commonalities may provide opportunities to take the next step in enhancing out understanding of how learning and growth happens in OST and how such events can be organized.

You are an international member of the OST SIG. What does the OST field stand to learn by engaging in research, knowledge sharing, and collaboration on a global scale?

I believe that any research field benefits from knowledge sharing and collaboration. Some key areas could be on the development of theoretical frameworks to describe knowledge production in OST events and long terms effect of OST activities. This would also include developing more research methodologies. But many structural differences also make it difficult to do actual comparisons and collaboration. One difference is that many US university students participate in OST activities as “service learning” without getting paid. The situation in Denmark is quite different. The students for instance, who disseminated their knowledge in the “Nature in the Tent” event described above, were all paid an hourly salary from the university for doing this. They were even paid a salary for participating in the workshop we organized for them. Another major difference is the school system. In the current education law (2014) for compulsory education (a 9 grade unit school run by municipalities) children have a rather long school day (30 hours weekly for K3, 33 hours for grades 4-6 and 35 hours for grades 7-9). The children are supposed to do various activities at school that previously belonged to out-of-school time. OST should be organized within the school frame. Such activities should include 45 minutes of sport or movement each day, supporting teaching done by both teachers and pedagogues, and the school should be an “Open School,” meaning that the municipalities should ensure collaboration between the schools and the local sport, culture, and music life. They should become part of the school day to make their activities support what the students are supposed to learn. Some reported affects is that children appear to abandon their usual free-time activities of sport or music since they are tired after the long school day and do not have the time. OST activities are essentially moved into school. But what happens to the learning, motivation and other effect of the activities when the “same” happens in another context? Such question is highly relevant to OST studies since it forces us to consider when an OST activity is “the same” as another OST activity if the context is different. How much does context matter? And, does it “matter” as long as students learn? The nationwide difference, and differences across institutions, both make it more difficult to collaborate, but also create a good opportunity for a “real” experiment, where certain things are held constant whereas others are different.

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Dear members,

We welcome you to the second year of the OST SIG e-newsletter series, designed to connect you to each other and to the emerging and groundbreaking scholarship in the out-of-school time field. We hope the series will introduce you to new ideas, concepts, and spark a connection in your work.

With warm regards,  
The officers of the OST SIG

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