Volume 15 Issue 17
Originally issued as G4



Global Journal of human-social science: G
Linguistics & Education
Volume 15 Issue 4 Version 1.0 Year 2015
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-460X & Print ISSN: 0975-587X

The Basics of Arctic Pedagogy

By Kaarina Määttä & Satu Uusiautti
University of Lapland, Finland

Abstract- The purpose of this article is to describe and define the special features of teaching and learning in the northern areas of Finland, especially in Arctic contexts. The article introduces the essence of Arctic pedagogy by introducing its challenges and goals, possibilities and significance. A model of Arctic pedagogy to be applied in northern education is outlined as a five-level action and teaching tool, which is manifested in learning processes, learning environments, teacherhood, educational leadership, and multi-professionalism. The cornerstones of Arctic pedagogy are adapting, understanding, and analyzing Arctic information in learning processes, student-centered caring teacherhood, wide-ranging networking to support learning, and communalism. The relationship between Arctic information, its implementation through Arctic pedagogy, and the goals of Arctic future skills are discussed.

Keywords: *learning, teaching, pedagogy, arctic.*

GJHSS-G Classification : *FOR Code: 200499*



Strictly as per the compliance and regulations of:



© 2015. Kaarina Määttä & Satu Uusiautti. This is a research/review paper, distributed under the terms of the Creative Commons Attribution-Noncommercial 3.0 Unported License http:// creativecommons.org/licenses/by-nc/3.0/), permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

The Basics of Arctic Pedagogy

Kaarina Määttä [α] & Satu Uusiautti [σ]

Abstract- The purpose of this article is to describe and define the special features of teaching and learning in the northern areas of Finland, especially in Arctic contexts. The article introduces the essence of Arctic pedagogy by introducing its challenges and goals, possibilities and significance. A model of Arctic pedagogy to be applied in northern education is outlined as a five-level action and teaching tool, which is manifested in learning processes, learning environments, teacherhood, educational leadership, and multi-professionalism. The cornerstones of Arctic pedagogy are adapting, understanding, and analyzing Arctic information in learning processes, student-centered caring teacherhood, wide-ranging networking to support learning, and communalism. The relationship between Arctic information, its implementation through Arctic pedagogy, and the goals of Arctic future skills are discussed.

Keywords: learning, teaching, pedagogy, arctic.

I. Introduction

The purpose of this article is to describe and define the special features of teaching and learning in the northern areas of Finland, especially in Arctic contexts. The Arctic is a polar region located at the northernmost part of the Earth, consisting of the Arctic Ocean and parts of Alaska (United States), Canada, Finland, Greenland (Denmark), Iceland, Norway, Russia, and Sweden. The viewpoint of this article is based in Finland, a small country located in the North Europe. The area of Finland that is located in the Arctic is called Lapland. The population of Lapland consists of mainstreaming Finnish people but of the indigenous people of Sámi as well. This is a very typical situation in countries located in the Arctic (see e.g., Brody, 1987; Slezkine, 1994).

Finland has internationally highly appreciated and recognized education system (see e.g., Simola, 2005; Välijärvi, 2014), and teacher education has been considered one of its main pillars (Uusiautti & Määttä 2013a; Välijärvi et al., 2007). However, the realization of education is a topical concern in Finland because of our long distances and scarce population; and these features are especially pronounced in northern parts of Finland, above the Arctic Circle, in the area called Lapland.

In this article, the aim is to analyze how to organize teaching and learning so that education can best support the well-being of people living in the Arctic and thus also contribute to the vitality of Arctic regions. Teaching in the Arctic is defined here as "Arctic pedagogy" and our purpose is to analyze what Arctic pedagogy is, how to implement it, and why it is important.

We work at the department of education at the University of Lapland, which is the northernmost university in European Union. The purpose of this article is to produce a model of Arctic pedagogy to strengthen education in schools in Lapland and to further teacher education and its special features in the northern area. The article is based on our long-term experience of the area; we have lived and worked for decades in research and education tasks in Lapland. Simultaneously, we have witnessed the changes in teaching, students, and learning in Lapland.

Our research has focused widely on the educational special features of Lapland and the special circumstances of education and teaching in the area (see e.g., Kilpimaa, Määttä, & Uusiautti, 2012; Lakkala, Uusiautti, & Määttä, 2014). For example, we have studies the state of pupil welfare in Lapland (e.g., Heikkilä & Määttä, 2012; Lakkala, Uusiautti, & Määttä, 2013; Koskela, Määttä, & Uusiautti, 2013), early childhood education and growth environment in Lapland (e.g., Happo, Määttä, & Uusiautti, 2012a; Määttä & Uusiautti, 2012a, 2012b; Uusiautti, Happo, & Määttä, 2014), Sámi education (e.g., Keskitalo & Määttä, 2011; Keskitalo, Uusiautti, Sarivaara, & Määttä, 2014), and teachers' expertise and teacher education in the northern circumstances (Happo, Määttä, & Uusiautti, 2012b; Uusiautti & Määttä, 2013b, 2013c). In addition, we have studied educational leadership (Uusiautti & Määttä, 2014a; 2015). The findings of these studies from the basis of Arctic pedagogy.

Education is always context-bound. Therefore, research and research-based education at the University of Lapland are focused on the northern societies, environment, people, and their interaction. The mission of the University of Lapland is captured in its watchword "For the North, for the world", and research on change in the Arctic and the North. According to the strategic profile of the University of Lapland, the impacts of global economic and political changes are felt more keenly in the Arctic than elsewhere (see also http://www.ulapland.fi/InEnglish/About-us/Strategy-2025). The purpose is to contribute to these aims of education and to the needs of the northern region from an educational perspective.

This article introduces the essence of Arctic pedagogy by introducing its challenges and goals,

Author α: Professor, University of Lapland, Finland.
e-mail: Kaarina.Määttä@ulapland.fi
Author σ: Adjunct Professor, Researcher, University of Lapland, Finland.
e-mail: satu_uusiautti@hotmail.com

© 2015 Global Journals Inc. (US)

possibilities and significance. A model of Arctic pedagogy to be applied in northern education will be outlined as the conclusion.

II. The Challenging Target Area of Arctic Pedagogy

The Arctic is a special area because of its history and conditions, which also influence educational solutions of the area (Brody, 1987; Byers, 2009; Kruse et al., 2009). The population of the Arctic increased rapidly as the health care improved and natural resources of the North were utilized systematically during the 1950s and 1960s. However, during the past few decades, the population growth has slowed down. In the current situation, many phenomena related to the demography (such as scarce population, means of communication, small student groups, and lack of available teachers) challenge education.

Likewise, the Arctic nature influence people's action in its own way (Ims et al., 2013): coldness (Hanson & Norberg, 2009; Young & Mäkinen, 2010) and variation of light (Hau et al., 2002) are the basic features of the area (see also Joy, Poe, Berman, & Davis, 1962; Pohjola et al., 2011; Pohjola, Kankaanpää, Moore, & Pastusiak, 2011). Long distances challenge both everyday life and means of earning living. Therefore, learning environments of the Arctic are located in many interfaces that occur not only physically but also mentally, culturally, geographically, linguistically, and environmentally, and within the transition from the traditional to technology (see e.g., Larsen & Fondall 2014; Nevgi, Virtanen, & Niemi, 2006; Niemi, 2003). The indigenous populations of the Arctic necessitate special cultural sensitivity in education that must be taken into consideration in Arctic education (see also Keskitalo, Uusiautti & Määttä, 2013, 2013; Keskitalo, Sarivaara, Uusiautti, & Määttä, 2013).

Arctic pedagogy means a new kind of realization of learning and teaching, surpassing the aforementioned boundaries and employing the opportunities offered by the social media and new technologies (see also e.g., Uusiautti & Määttä, 2014b). It aims at engaging learners of different ages in the local, regional, and global co-operation and life-long, life-wide learning regardless of whether it happened at school or work, or in the third age.

The level of Arctic information and knowledge is expanding, and, therefore, Arctic education should pay attention to how to enhance information seeking skills and understanding of how information is constructed and produced, how to evaluate reliability of the information, and how to master and analyze information entities (Nonaka & Konno, 1998). Teachers who work in the Arctic area must not just be considered distributors of information but guides and motivators who support students' positive development and identification with the Arctic area.

III. The Objectives of Arctic Pedagogy

The objective of Arctic pedagogy is to strengthen the future skills of people and workplaces in the Arctic area by enhancing their communalism, collaboration, problem-solving skills, and opportunities to active learning that is based on their own premises and culture. Technology skills contributes to various skills but, in addition, it supports influencing opportunities and realization of equality and produces participation. It also creates a learning environment that promotes formal and informal learning by combining generations and their cultural legacies. Learning draws from various teaching and learning methods, such as peer learning and physical and virtual learning spaces.

Arctic pedagogy is based on the idea that information seeking skills, ability to evaluate the correctness of information and to analyze entities are crucial in learning. Arctic pedagogy is, therefore, not just about information distribution. Our society necessitates new kind of expertise and knowhow. From the point of view of Arctic pedagogy, it is necessary to pay attention to such basic skills and attitudes that promotes learners' entrenchment to and positive development in Lapland. Arctic information should be applied widely to provide students with favorable premises to adopt the core information that also makes it possible to renew, change, and deepen knowledge and learning.

The purpose of Arctic pedagogy is to tie Arctic information with teaching in various subjects and at the different levels of curricula. When designing learning entities, the Arctic special features could be noticed as teaching contents and supporting themes. Arctic information can be analyzed and applied in various cross-curricular learning projects. This is how the basis of Arctic pedagogy is created by drawing from the regional special circumstances to providing students with means to perceive the possibilities of the North as well as their own strengths as factors of learning and future success.

IV. The Implementation and Elements of Arctic pedagogy

Arctic pedagogy appears as a five-level action and teaching tool. It is manifested as follows:

1) Arctic pedagogy appears in learning processes.

(a) *as goals:* Arctic pedagogy aims at promoting learning and creating such learning conditions that learning becomes possible to everyone as life-long and life-wide in the Arctic circumstances realizing and recognizing, appreciating and renewing their special features.

© 2015 Global Journals Inc. (US)

(b) *as methods:* The methods of Arctic pedagogy draw from the opportunities of new technologies as well as from the recognition of students' resources and strengths. Methods include distance, internet-based, and virtual teaching, and contact, small group, and peer teaching. Teaching applies a strength-based and caring pedagogical approach which pays attention to individual strengths in formal and informal, physical and virtual learning environments. Students will be motivated and activated with pedagogical solutions that are creative, bold, and individualized, and appreciate disparity.

(c) *as contents:* Arctic pedagogy combines Arctic information with teaching of various school subjects, learning entities, and themes at the different levels of curricula. The Arctic Centre is a research center at the University of Lapland producing multi-disciplinary research on the circumstances in the Arctic (see http://www.arcticcentre.org/EN/RESEARCH).

2) Arctic pedagogy appears in learning environments. The key terms of Arctic pedagogy are inclusion, innovation, and spatiality (physical and virtual spaces). Learning environments are perceived more widely than just classroom-based spaces. Especially, Arctic information is employed in learning environment, for example by visiting local nature, culture, and industry and commerce, and as related learning projects. Learning environments are designed so that they support students' positive development physically, socially, emotionally, and cognitively.

3) Arctic pedagogy appears in teacherhood. Arctic pedagogy reflects on teacherhood not only as subject-specific discussion over Arctic questions but also as pedagogical skills, interaction skills, and strength-recognition and supporting skills that form the core of caring teacherhood. Teachers also need technological and networking skills to create various learning environments.

4) Arctic pedagogy appears in educational leadership. Arctic pedagogy is also based on the idea of caring leadership that includes shared leadership, Arctic expertise as the strategic foundation of education, quality control, and teamwork. According to the caring leadership idea, teachers, educators, and education authorities can act as motivators, guides, and supporters of learners' learning, strengths and well-being, and positive development in general. Caring leadership in teaching is manifested as the teacher's interaction with students and other school personnel, students' parents and partners of the school.

5) Arctic pedagogy appears in multiprofessionalism. Arctic pedagogy is strongly local and aims at including and entrenching Arctic information in teaching. Therefore, local agents, partners, networks, homes, other schools, and education professionals, school health care nurses and psychologists, and counselors form an important multiprofessional network that help implementing Arctic pedagogy.

The elements of Arctic pedagogy are illustrated in Figure 1.

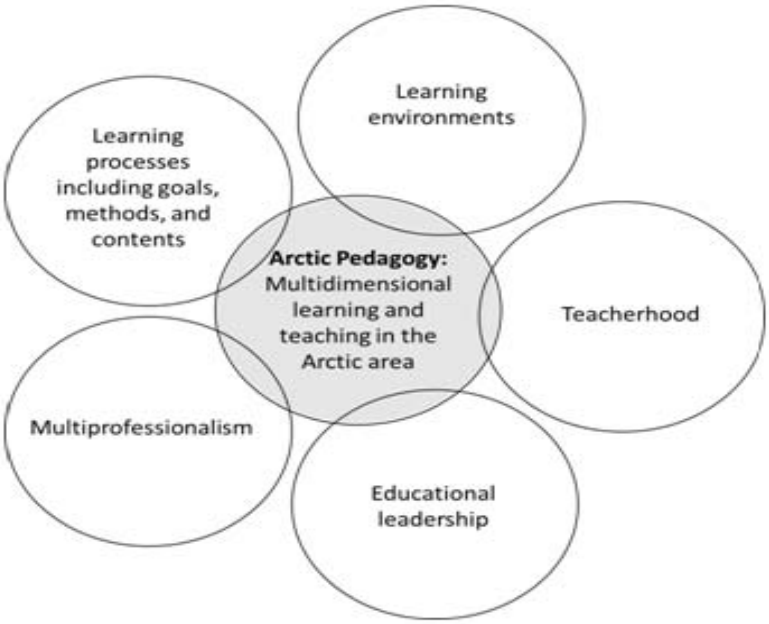

Figure 1 : The elements of Arctic pedagogy

© 2015 Global Journals Inc. (US)

V. The Implementation and Elements of Arctic Pedagogy

The essential learning target of Arctic pedagogy is Arctic future skills that aim at maintaining and promoting the livelihood and well-being of the area. The cornerstones of Arctic pedagogy are adapting, understanding, and analyzing Arctic information in learning processes, student-centered caring teacherhood, wide-ranging networking to support learning, and communalism. For example, the Arctic Centre produces Arctic information through its many research projects.

The relationship between this foundation (Arctic information), implementation (Arctic pedagogy), and goals (Arctic future skills) is illustrated in Figure 2.

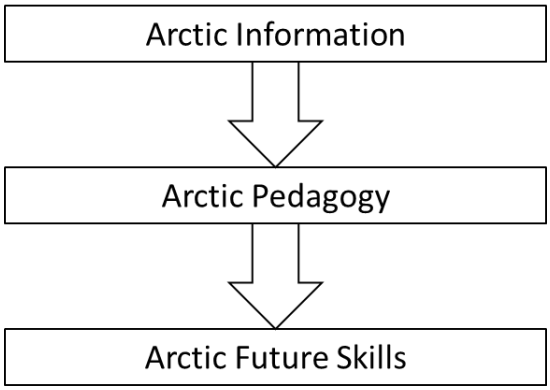

Figure 2 : Arctic information as the foundation of Arctic pedagogy, Arctic future skills being the goal

VI. Conclusion

The Arctic area is sparsely-populated and long distances determine the direction and arrangements of life and schooling. Schools are located in municipal centers even hundreds of kilometers from each other. In Lapland, school commutes are therefore long, including time to wait for the transportation (Koskela, Määttä, & Uusiautti, 2013). Actually, it is not a very long time since there still were boarding schools (Kilpimaa, Määttä, & Uusiautti, 2012; Lakkala, Määttä, & Uusiautti, 2013). The extraordinary circumstances also make it difficult to arrange parents' conferences or meetings with multiprofessional teams. There is lack of student health care personnel and specialized professionals (Koskela, Määttä, & Uusiautti, 2013).

Still, the nature and culture of the Arctic area, natural livelihoods, tourism (e.g., Pretes, 1995), and for example, mining industry (see e.g., Suopajärvi, 2014) provide special living and developmental opportunities (Larsen & Fondall, 2014). Many of those born in Lapland want to do their life's work in their home region – but it necessitates suitable education and employment opportunities (see McLean, 1997; Sarivaara, Uusiautti, & Määttä, 2013). Therefore, Arctic future skills become invaluable.

It is not easy to renew education, and the old learning and teaching methods tend to be adopted from generation to another. New approaches should be actively invented and tested, and a bold, open-minded attitude is needed (see also Keskitalo & Sarivaara, 2014). Therefore, it is surprising how slowly the new technological opportunities are exploited in education (Blin & Munro, 2008). Arctic pedagogy is a teaching method that leans on the northern special features, but simultaneously seizes the modern possibilities and attempts to adopt them in northern education. Its fundamental goal is to enhance knowledge and appreciation of the Arctic special features so that the vitality of the area is maintained and strengthened. The future of the Arctic areas depends on the versatile and wide-ranging education of its people—on their future skills. This vision means that Arctic pedagogy has a unique and irreplaceable significance.

Arctic pedagogy should be developed through practical experiments and research for this is the only way to know which methods suit the area the best and support students' learning, entrenchment, and well-being. Consequently, the current research on Arctic pedagogy (see e.g., Keskitalo, Määttä, & Uusiautti, 2013; Leskisenoja & Uusiautti, 2015) is based on action research in which the new methods are implemented, evaluated, and renewed in the Arctic area in collaboration with teachers, students, and school authorities. When the elements of Arctic pedagogy are implicitly described at the practical level, their theoretical foundations can be deepened with interdisciplinary research. Research on the teaching experiences and practices provides new information to further refine practical applications.

The research-based model of Arctic pedagogy can become an established part of teacher training at the University of Lapland, and its implementation can be evaluated in the elementary schools and teacher training schools in the Arctic area. The goal is to enhance teachers' awareness of how to include Arctic questions in teaching methodologically and as regards the content.

Teacher training is an essential element to develop Arctic pedagogy. The Finnish research-based teacher training forms a suitable foundation to strengthen and further Arctic pedagogy (see Kansanen, 2006; Uusiautti & Määttä, 2013b). When teachers apply the pedagogy in practice and it is evaluated by research, the approach will be strengthened, refined, and molded according to the Arctic circumstances. Thus, Arctic pedagogy will be an important future-maker in the Arctic area.

© 2015 Global Journals Inc. (US)

References Références Referencias

1. Blin, F., & Munor M. (2008). Why hasn't technology disrupted academics' teaching practices? Understanding resistance to change through the lens of activity theory. *Computers & Education, 50* (2), 475-490. doi: 10.1016/j.compedu.2007.09. 017.
2. Brody, H. (1987). *Living Arctic: hunters of the Canadian north.* Vancouver: Douglas & McIntyre.
3. Byers, M. (2009). *Who owns the Arctic? Understanding sovereignty disputes in the North.* Vancouver: Douglas & McIntyre.
4. Hansson, H., & Norberg, C. (2009). *Revisioning the value of cold.* Retrieved from: http://www.diva-portal.org/smash/get/diva2:231864/FULLTEXT01.pdf
5. Happo, I., Määttä, K., & Uusiautti, S. (2012a). How do early childhood education teachers perceive their expertise? A qualitative interview study of child care providers in Lapland, Finland. *Early Childhood Education Journal, 41*(4), 273-281
6. Happo, I., Määttä, K., & Uusiautti, S. (2012b.) Experts or good educators - or both? The development of early childhood expertise in Finland. *Early Childhood Development and Care, 182*(3-4), 487-504.
7. Hau, M., Romero, L. M., Brawn, J. D., & Van't Hof, T. J. (2002). Effect of polar day on plasma profiles of melatonin, testosterone, and estradiol in high-Arctic Lapland longspurs. *General and comparative endocrinology, 126*(1), 101-112.
8. Heikkilä, A., & Määttä, K. (2012). How were the pupils dressed in a countryside in North-Finland in 1909-1939? *Early Childhood Development and Care, 182*(3-4), 453-467.
9. Ims, R. A., Ehrich, D., Forbes, D. C., Huntley, B., Walker, D. A., & Wookey, P. A. (2013). Terrestrial ecosystems. In H. Meltofte (Ed.), Arctic biodiversity assessment: Status and trends in Arctic biodiversity (pp. 385-440). Retrieved from: http://www.arcticbiodiversity.is/index.php/the-report/chapters/terrestrial-ecosystems
10. Joy, R. J., Poe, R. H., Berman, F. R., & Davis, T. R. (1962). Some physiological responses to Arctic living: A study of cold acclimatization. *Archives of Environmental Health: An International Journal, 4*(1), 22-26.
11. Kansanen, P. (2006). Constructing a research-based program in teacher education. In F. K. Oser, F. Achtenhagen, & U. Renold (Eds.), *Competence oriented teacher training. Old research demands and new pathways* (pp. 11-22). Rotterdam: Sense Publishers.
12. Keskitalo, P., & Määttä, K. (2011). *The basics of Sámi pedagogy*. Rovaniemi: Lapland University Press.
13. Keskitalo, P., Määttä, K., & Uusiautti, S. (2012) Sámi Education in Finland. *Early Childhood Development and Care, 182*(3-4), 329-343. doi: 10.1080/03004430.2011.646723
14. Keskitalo, P., Määttä, K., & Uusiautti, S. (2013). *Sámi education.* Frankfurt am Main: Peter Lang.
15. Keskitalo, P., & Sarivaara, E. (2014). Välittävän saamentutkimuksen merkitys [The significance of caring Sámi research]. In K. Määttä & S. Uusiautti (Eds.), *Voimaa välittävästä tutkimuksesta. Kasvatusalan konferenssi 6.-7.10.2014* [Strength from caring research. Educational Conference 6-7 Oct 2014] (pp. 55-64). Rovaniemi: University of Lapland.
16. Keskitalo, P., Uusiautti, S., Sarivaara, E., & Määttä, K. (Eds.) (2014). *Saamelaispedagogiikan ydinkysymysten äärellä* [The core questions of Sámi pedagogy]. Rovaniemi: Lapland University Press.
17. Kilpimaa, M., Määttä, K., & Uusiautti, S. (2012). What is the future of village schools? A case study on the life cycle of a school in northern Finland. *Review of European Studies, 4*(1), 125-137.
18. Koskela, T., Määttä, K., & Uusiautti, S. (2013). Pupil welfare in Finnish schools – communal or falling apart? *Early Child Development and Care, 183*(9), 1311–1323. doi: 10.1080/03004430.2012.725049
19. Kruse, J., Poppel, B., Abryutina, L., Duhaime, G., Martin, S., Poppel, M., & Hanna, V. (2009). Survey of living conditions in the arctic (SLiCA). In *Barometers of quality of life around the globe* (pp. 107-134). Dordrecht: Springer.
20. Lakkala, I.-K., Määttä, K., & Uusiautti, S. (2013). Boarding schools as means to educate children from remote districts in Finland. *History of Education & Children´s Literature, 8*(1), 597-618.
21. Lakkala, S., Uusiautti, S., & Määttä, K. (2014). How to make the neighbourhood school a school for all? Finnish teachers' perceptions of educational reform aiming towards inclusion. *Journal of Research in Special Educational Needs*, iFirst 14 Jan 2014. doi: 10.1111/1471-3802.12055
22. Larsen, J. N., & Fondall, G. (Eds.) (2015). *Arctica human development report. Regional processes and global linkages (AHDR-II). Temanord 567.* Retrieved from: http://norden.diva-portal.org/smash/get/diva2:788965/FULLTEXT01.pdf
23. Leskisenoja, E., & Uusiautti, S. (2015). PERMA-based teaching methods as the way to enhance well-being and engagement in students. *New Ways to Teach and Learn for Student Engagement*, Stanford University, California, USA, 21-22 April 2015.
24. McLean, S. (1997). Objectifying and naturalizing individuality: A study of adult education in the Canadian Arctic. *Canadian Journal of Sociology/Cahiers Canadiens de Sociologie*, 1-29.
25. Määttä, K., & Uusiautti, S. (Eds.) (2012a). *Early child care and education in Finland.* Abingdon: Routledge.

© 2015 Global Journals Inc. (US)

26. Määttä, K., & Uusiautti, S. (2012b) How to raise children to be good people? *Analytic Teaching and Philosophical Praxis, 33*(1), 83-91.
27. Nevgi, A., Virtanen, P., & Niemi, H. (2006). Supporting students to develop collaborative learning skills in technology-based environments. *British Journal of Educational Technology, 37*(6), 937–947. doi: 10.1111/j.1467-8535.2006.00671.x
28. Niemi, H. (2003). Towards a learning society in Finland: information and communications technology in teacher education. *Technology, Pedagogy and Education, 12*(1), 85-103. doi: 10.1080/14759390300200147
29. Nonaka, I., & Konno, N. (1998). The concept of "Ba": Building a foundation for knowledge creation. *California Management Review, 40*(3), 40–54.
30. Pohjola, V. A., Christoffersen, P., Kolondra, L., Moore, J. C., Pettersson, R. S., Schäfer, M., Strozzi, T., & Reijmer, C. H. (2011). Spatial distribution and change in the surface ice-velocity field of Vestfonna ice cap, Nordaustlandet, Svalbard, 1995–2010 using geodetic and satellite interferometry data. *Geografiska Annaler: Series A, Physical Geography, 93*, 323–335. doil: 10.1111/j.1468-0459.2011.00441.x
31. Pohjola, V. A., Kankaanpää, P., Moore, J. C., & Pastusiak, T. (2011). The International Polar Year Project 'KINNVIKA'– Arctic warming and impact research at 80° N. *Geografiska Annaler, Series A, Physical Geography, 93*, 201–208. DOI: 10.1111/j.1468-0459.2011.00436.x
32. Pretes, M. (1995). Postmodern tourism: the Santa Claus industry. *Annals of Tourism Research, 22*(1), 1-15.
33. Sarivaara, E., Uusiautti, S., & Määttä, K. (2013). Critical Sámi research as the means of finding way of seeing. *International Journal of Social Science Research, 2*(1), 1-18.
34. Simola, H. (2005). The Finnish miracle of PISA: Historical and sociological remarks on teaching and teacher education. *Comparative Education, 41*(4), 455-470. doi: 10.1080/03050060500317810
35. Slezkine, Y. (1994). *Arctic mirrors: Russia and the small peoples of the North*. Cornell: Cornell University Press.
36. Suopajärvi, L. (2014). Social impact assessment in mining projects in Northern Finland: Comparing practice to theory. *Environmental Impact Assessment Review, 42*, 25–30. doi:10.1016/j.eiar.2013.04.003
37. Uusiautti, S., & Määttä, K. (2013a). Significant trends in the development of Finnish teacher training from the 1860s to 2010. *Education Policy Analysis Archives, 21*(59), 1-19.
38. Uusiautti, S., & Määttä, K. (2013b). How to train good teachers in Finnish universities? Student teachers' study process and teacher educators' role in it. *European Journal of Educational Research, 1*(4), 339-352.
39. Uusiautti, S., & Määttä, K. (2013c). Good teachers and good teacher educators: A glance at the current teacher education in Finland. *Asian Journal of Education and e-Learning, 1*(1), 1-6.
40. Uusiautti, S., & Määttä, K. (2014a). How can teachers as love-based leaders enhance learning? *The International Journal of Educational Organization and Leadership, 20*(4), 1-9.
41. Uusiautti, S., & Määttä, K. (2014b). I am no longer alone - How do university students perceive the possibilities of social media? *International Journal of Adolescence and Youth*, iFirst June 5, 2014. doi: 10.1080/02673843.2014.919600
42. Uusiautti, S., & Määttä, K. (2015). Roadmaps or merely compasses? Perceived meaningfulness as the core of caring leadership. *International Journal of Arts and Sciences, 7*(5), 735-748.
43. Uusiautti, S., Happo, I., & Määttä, K. (2014). Challenges and strengths of early childhood education in sparsely populated small provinces. The Case of Lapland, Finland. *British Journal of Education, Society & Behavioural Science, 4*(5), 562–572.
44. Välijärvi, J. (2014). *Osaaminen kestävällä perustalla. Suomen PISA-tulosten kehitys vuosina 2000–2009. Tilannekatsaus helmikuu 2014* [Expertise on a secure basis. The development of Finland's PISA results in 2000-2009. A snapshot on February 2014]. Helsinki: National Board of Education.
45. Välijärvi, J., Kupari, P., Linnakylä, P., Reinikainen, P., Sulkunen, S., Törnroos, J., & Arffman, I. (2007). *The Finnish success in Pisa and some reasons behind it: Pisa 2003.* Jyväskylä: Finnish Institute for Educational Research.
46. Young, T. K., & Mäkinen, T. M. (2010). The health of Arctic populations: Does cold matter? *American Journal of Human Biology, 22*(1), 129-133.

© 2015 Global Journals Inc. (US)