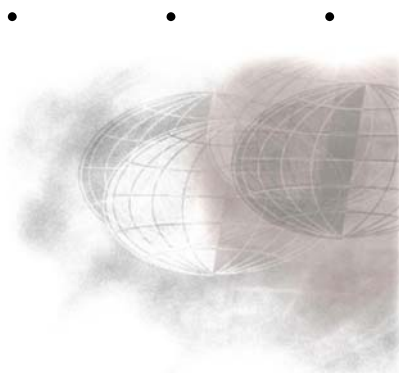




UNESCO CHAIR
PROBLEM BASED LEARNING
AALBORG UNIVERSITY • DENMARK

UNESCO CHAIR for Problem Based Learning



UCPBL Annual Report 2007 - Final

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Aalborg University

Contents

CONTENTS	2
1. THE PROFILE OF UNESCO CHAIR IN PROBLEM BASED LEARNING	3
1.2 ORGANISATION OF THE UNESCO CHAIR	4
UCPBL MANAGEMENT BOARD (MB):	4
UCPBL UNIVERSITY BOARD (UB):	5
UCPBL INTERNATIONAL BOARD (IB):	5
UCPBL ACADEMIC STAFF (AS):	5
2. PBL GLOBAL NETWORK	6
2.1 ONLINE RESOURCES	6
3. PBL RESEARCH	7
3.1 OTHER RESEARCH ACTIVITIES	7
4. PBL EDUCATION	8
5. PBL CONSULTANCY	10
6. CONFERENCES AND WORKSHOPS HELD BY UNESCO CHAIR	11
7. PARTICIPATION IN CONFERENCES	12
8. VISITS TO AALBORG UNIVERSITY	13
9. PUBLICATIONS	16

1. The Profile of UNESCO CHAIR in Problem Based Learning

The UNESCO Chair for Problem Based Learning (UCPBL) was established 2007 at Aalborg University (AAU). It has been a busy year to start this new organisation. Many of the activities have been prolonged from the previous and now closed UNESCO International Centre for Engineering Education, Centre for Problem Based Learning at Aalborg University. However, this newly established UNESCO Chair for Problem Based Learning has developed a new profile concerning establishment of a PBL Global Network and with much more emphasise on engineering education research and research based development.

The overall objective of this UNESCO Chair is to create a global society for researchers and academic staff working with PBL. This includes research and development activities, educational programs, consultancy activities, and the establishment of a global network for international cooperation and exchange of experiences.

The specific objectives are:

- To establish a sustainable global network of individuals and institutions already having or wanting to develop expertise in PBL.
- To establish a research network of active researchers in PBL.
- To develop and run a distance Masters Programme in Problem Based Learning in Engineering and Science (MPBL) open for participants at a global level.
- To disseminate experience gained from current projects concerning implementation of PBL in developing countries.
- To provide possibility for training and consultancy.

During this first year, a lot of effort has been put into the establishment of the organisation and start up the main activities.

The overall profile and the activities of the UCPBL Centre for Problem Based Learning are presented in the work plan that is continually updated and available at: http://468168.g.portal.aau.dk/ucpbl_profile/2177432

1.2 Organisation of the UNESCO CHAIR

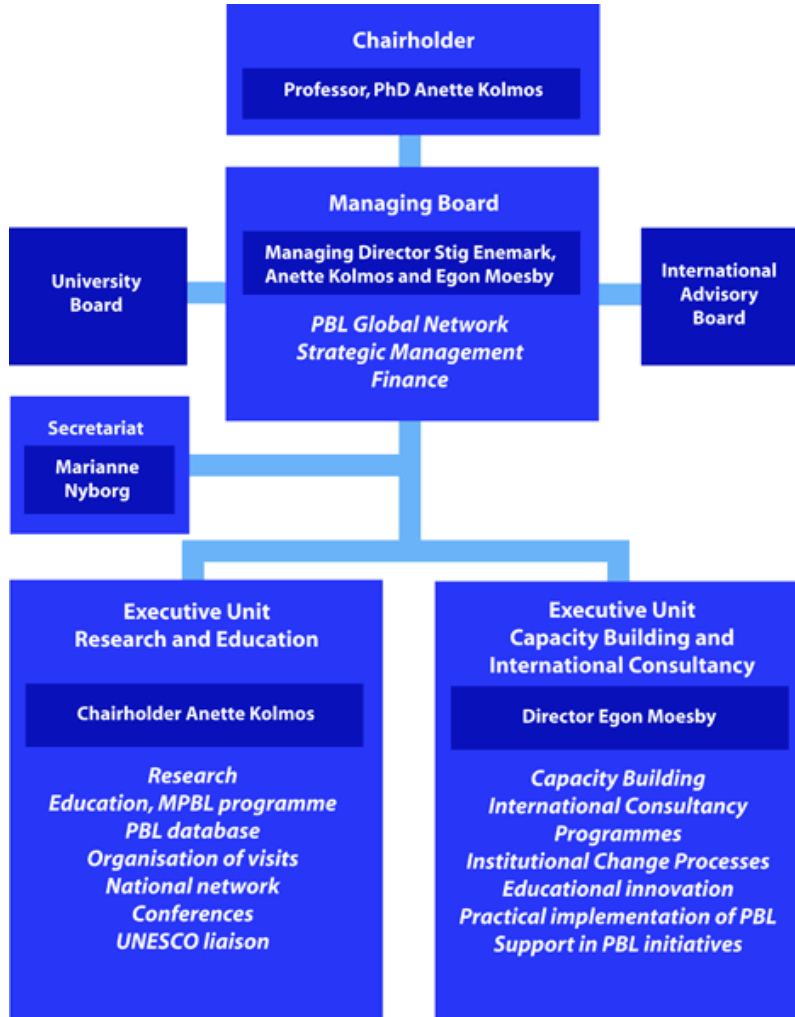


Figure 1: The organisation chart of the UNESCO Chair in Problem Based Learning in Engineering Education

The organisation that has been established contains a management board with the coordinating function, two advisory boards: an internal university board and an international board. The boards have the following members:

UCPBL Management Board (MB):

Anette Kolmos, Chair Holder, Professor
Stig Enemark, Managing Director, Professor
Egon Moesby, Director, Associate Professor

UCPBL University Board (UB):

Arne Remmen, Professor, Department of Development and Planning
Børge Lindberg, Associate Professor, Department of Electronics
Flemming K. Fink, Professor, Department of Electronics
Henrik Brohus, Associate Professor, Department of Civil Engineering
Karl Brian Nielsen, Professor, Department of Production
Kim Haugbølle, Research Director, Danish Building Research Institute
Kristian Olesen, Associate Professor, Department of Computer Science
Lise Kofoed, Professor, Department of Technology, Copenhagen
Lone Dirckinck-Holmfeld, Professor, Department of Communication and Psychology
Paola Valero, Associate Professor, Department of Learning
Torben Rosenørn, Head of Department, Department of Technology, Esbjerg

UCPBL International Board (IB):

Sherra Kerns, Professor, Vice President, Olin College, US
Ulisses Araújo, Professor, University of Sao Paulo, Brazil
Tony Marjoram, Dr., Programme Specialist, UNESCO, France
Richard Felder, Dr., Professor, US
Roger Hadgraft, Director, Associate Professor, RMIT University, Australia
Mikhail Minin, Dr., Professor, Tomsk Polytechnic University, Russia
Pornchai Mongkhonvanit, President, Professor, Siam University, Thailand
Wang Sunyu, Professor, Executive director, Tsinghua University, China

Furthermore, two executive units have been established: 1) research and education and 2) international consultancy. The core staff working in the two units is:

UCPBL Academic Staff (AS):

Anette Kolmos, Chair Holder, Professor
Egon Moesby, **Director**, Associate Professor
Xiangyun Du, Assistant Professor
Jette Egelund Holgaard Associate Professor
Palle Qvist, Associate Professor
Mona Dahms, Associate Professor
Lars Bo Henriksen, Associate Professor
Erik de Graaff, Extraordinary Professor

During this first year, the organisation has been established – the next turn is to make it work.

2. PBL Global Network

The overall goal is to establish a PBL global network which is a forum for individuals and educational institutions having an interest or being actively involved in PBL activities. The network will facilitate:

- Cooperation and global exchange of experience within the PBL area
- Research activities on PBL
- Capacity building initiatives
- Curriculum development activities
- Staff development activities

It is meant as an open network with all resources available at the internet. In order to facilitate exchange of experiences, there are two types of membership: institutional and individual member.

To qualify for institutional membership of the PBL Global Network, the institutions will need to demonstrate the use of PBL methods or that the institution is in the process of preparation or implementation of a PBL approach. Institutional members can upload self-promotion of the institutional profile of the member institutions.

To qualify for individual membership, there are no restrictions. Researchers, academic staff and practitioners having an interest in PBL are all welcome.

During the year, there have been several activities to establish the PBL global network. In general, there are two types of activities: face-to-face activities such as conferences and workshops and virtual activities. For the conferences and workshops that have been held, please see 6. Conferences.

2.1 Online resources

In order to provide access to resources, the strategy is to facilitate the PBL Global Network by several online resources. The following online resources have been established:

PBL Global Network Blog site with individual and community blogs. The objective is to facilitate exchange of experiences globally: <http://ucpbl.aau.dk/>

On-line PBL Library with resources from research literature, experts, databases, etc: http://www.ucpbl.net/pbl_library

Homepage with resources where selected events are accessible as streamed video:

<http://www.ucpbl.net/>

3. PBL Research

The role of the executive unit for research and education is to provide evidence of the effect of PBL concerning knowledge, skills, learning environment, engineering identity and change to PBL.

One of the overall activities will be to develop a research programme for the UNESCO Chair in Problem Based Learning in Engineering Education and set up international research projects with the objectives to develop tools for researching PBL. Research tools should be developed in close cooperation with research partners within the network. Any research instrument that has been developed should be accessible and free of use.

- Research project on use of PBL in sustainable studies concerning learning environment, development of skills and knowledge. Link: [http://vbn.aau.dk/research/effect_of_pbl_on_students_learning_in_international_programs_an_across_culture_study\(13713476\)/](http://vbn.aau.dk/research/effect_of_pbl_on_students_learning_in_international_programs_an_across_culture_study(13713476)/)
- Research project on PBL and assessment methods (individual and team based assessment). Link: [http://vbn.aau.dk/research/comparing_group_based_and_individual_assessment\(13713576\)/](http://vbn.aau.dk/research/comparing_group_based_and_individual_assessment(13713576)/)
- Research project on change to PBL. Link: [http://vbn.aau.dk/research/forandring_til_problembaseret_laering_pbl_i_ingenioeruddannelsen\(20195\)/](http://vbn.aau.dk/research/forandring_til_problembaseret_laering_pbl_i_ingenioeruddannelsen(20195)/)
- Research project on intercultural learning and PBL. Link: [http://vbn.aau.dk/research/global_collaboration_a_case_study_of_genso_project\(13713549\)/](http://vbn.aau.dk/research/global_collaboration_a_case_study_of_genso_project(13713549)/)

The strategy for the coming year is to get international PhD students involved.

3.1 Other research activities

Beside from research projects, the UCPBL academic staff participates actively in development of the research society on engineering education – partly by participating in relevant conferences all over the world, partly by participating in editorial work for several journals in the field.

- Associate editor for the journal: Journal for Engineering Education (ISI journal), ASEE
- Associate editor for European Journal of Engineering Education, SEFI.

Member of editorial board of:

International Journal for the Scholarship of Teaching & Learning (IJ-SoTL).

International Journal for Academic Development, Routledge.

The chair has been actively involved in organising a working group on Engineering Education Research in SEFI (European Association for Engineering Education) and in the establishment of the Danish Centre for Engineering Education Research and Development: <http://www.dacin.dk>

4. PBL Education

Master in Problem Based Learning in Engineering and Science (MPBL – www.mpbl.aau.dk) is a core activity for the chair. This is a 2-year part-time masters programme (one year fulltime), organised as technology-supported distance learning, thus enabling people to participate no matter where they live in the world. It works as a train-the-trainer programme. This programme is already developed in a pilot form and marketing has begun. The development of the Master in Problem Based Learning in Engineering Education was financed by Socrates. This project was finalised in January 2007 with the submission of the final report to EU.

In order to develop Danish versions of selected single subject courses, an application was sent to “Efteruddannelsesudvalget for Længerevarende Uddannelse (ELU).” Two new single subject courses have been developed during 2007, supported by ELU with DKK 179.500.

The MPBL-programme started the first 14 participants in February 2007. The MPBL is offering both full programme (60 ECTS) and single subject courses (3 ECTS).

During 2007, the entire study programme was revised due to implementation of new grading scale and to overall improvement of the MPBL programme.

Master in Problem Based Learning in Engineering and Science (MPBL)		
Module 1: Development of Teaching Competences		
Project unit: Teaching Portfolio	Project unit examination. Internal, individual examination, marked by Passed/Non-passed	12 ECTS
In connection with the project unit a number of P-courses are offered, such as: <ul style="list-style-type: none"> • Learning Theories for Engineering and Science Education • Engineering Didactics 		
S-course: PBL Models in Engineering and Science Education	Internal examination, marked by Passed/Non-passed	3 ECTS
Module 2: Planning of Educational Experiments		
Project unit: Project work	Project unit examination. External, individual examination, marked by 7-step scale	12 ECTS
In connection with the project unit a number of P-courses are offered, such as: <ul style="list-style-type: none"> • Development of Process Competences • Scientific Methods in Engineering • Research methods 		

S-course: Intercultural Learning and PBL	Internal examination, marked by Passed/Non-passed	3 ECTS
Module 3: Implementation of Educational Experiments		
Project unit: Project work	Project unit examination. Internal, individual examination, marked by 7-step scale	12 ECTS
In connection with the project unit a number of P-courses are offered, such as: <ul style="list-style-type: none"> • Evaluation and Quality Development of Engineering and Science Education • Strategies for Management of Pedagogical Development • Engineering Competences in a Global Information Society 		
S-course: Project Facilitation and supervision	Internal examination, marked by 7-step scale	3 ECTS
Module 4: Reflection and Evaluation		
Master thesis	Project unit examination External , individual examination, marked by 17-step scale	15 ECTS

Since February 2006, the Master in Problem Based Learning has been up running with:

- 16 participants enrolled in the entire programme,
- 4 participants enrolled in the single subject course: teaching portfolio, 12 ECTS
- 44 participants enrolled in different single subject courses of 3 ECTS

For the full programme we have participants from Australia, Austria, Chile, Columbia, Denmark, Germany, South Africa and Saudi Arabia. Most of the participants at the single subject courses all come from Denmark. Next start will be summer 2008.

The task for the coming years will be to disseminate information about the MPBL, evaluate and progress the MPBL and offering activities at regional levels.

5. PBL Consultancy

There are three types of consultancy activities:

1. Consultancy visits
2. Consultancy agreements
3. Capacity Building agreements

The second and third activity is formal cooperation relating to specific topics stated in a formal agreement. During 2007, there has only been consultancy visits at the following places:

11 – 17 Jan	PBL seminars China: Xiangyun Du Seminar on 'Problem Based Learning as an educational philosophy and its implementation on environmental studies' in Beijing Normal University, China Seminar on 'Problem Based Learning as an educational philosophy and its implementation on environmental studies' in Guangdong University of Technology, China
23 Feb – 11 Mar	Malaysia and Singapore: Mona Dahms Visit and PBL presentation at University of Technology Malaysia (UTM). Visit and PBL presentation at University of Technology Mara (UiTM), Malaysia. Visit and meeting concerning PBL consultation at University Tun Hussein Onn Malaysia, (UTHM). PBL-presentation with Director and Assistant Director, School of Engineering, Republic Polytechnic, Singapore.
25 Feb -1 Mar	Workshop Georgia Tech, Atlanta, USA: Anette Kolmos Problem-Based Learning: Theory, Research, & Inspiring Practices, (27 th February)
16 – 27 Apr	South Africa: Mona Dahms Visit and PBL presentation with Dean of Engineering at Walter Sisule University, East London, South Africa Visit and PBL presentation at Faculty of Engineering, Walter Sisulu University, Umtata, South Africa Visit and 4 PBL presentations at Central University of Technology, Bloomfontein, South Africa.
April	Aalborg University: Egon Moesby Health Network Conference, presentation of "Methods for retention at the first year at the Faculty of Engineering, Science and Medicine at Aalborg University – Practical experience and recommendations"
May	Aalborg University (AUB): Egon Moesby Presentation of PBL models for librarians from Lund Tekniska Högskola, Sweden
19 Jul- 2 Aug	Universidad Austral de Chile: Rodrigo Pizarro Ordoñez

Workshop	
17 Aug, 21 Sep, 22 Nov	Consultancy workshop on PBL implementation at Nursing School Vejele: Egon Moesby
3 -11 Sep	Workshop Cuba: Mona Dahms, and Claus Spliid A week with workshops on PBL at CUJAE, Cuba for approximately. 25 participants.
22 -23 Nov	Workshop University of Stuttgart, Germany: Anette Kolmos
1 – 16 Dec	Workshop Malaysia, Bangladesh and Nepal: Mona Dahms Workshop on "Problem crafting and facilitation in PBL" at UTM, Malaysia. Workshop on PBL at UiTM, Malaysia. Workshop on PBL curriculum development at UTHM, Malaysia. Workshop on PBL at Bangladesh University of Engineering and Technology, Bangladesh Workshop on PBL at Institute of Engineering, Tribhuvan University, Nepal.
12 – 19 Dec	Workshop at University of Melbourne: Anette Kolmos PBL: Evidence and Change Strategies

6. Conferences and workshops held by UNESCO CHAIR

In order to facilitate the PBL Global network, conferences and workshops have been held both at Aalborg University, but also abroad. The conferences and workshops held at Aalborg University are the following:

26 – 27 Jan	SIG B5 MeetingThe UNESCO chair organized in January the final workshop for the research project TREE on PBL. After the meeting, the final report was edited and submitted. http://www.unifi.it/tree/dl/oc/b5.pdf
24 Mar	Aalborg Culture Day: was an event initiated by academic staff members from UNESCO PBL chair together with a group of active staff and students from Aalborg University (AAU). The main aims are to celebrate the multicultural diversity of Aalborg University and Aalborg city, and to contribute to greater understanding and better dialogue between people of different ethnic origin. http://aalborgcultureday.aau.dk/en/news/?id=57

24 May Collaboration between Aalborg University and Tsinghua University, China.
Aalborg University organised together with the UNESCO Chair a workshop on PBL for participants from Tsinghua University.

6 – 7 Sep UNESCO CHAIR Launch Conference
The UNESCO Chair was launched by a launch workshop and a launch conference September 6-7, 2007. These were international event with participation of nearly 70 academic staff from more than 15 countries from nearly all continents. There were four special invited guests from Uganda, Tanzania, Nepal and Bangladesh funded by UNESCO. There is a special report on this event, see

Furthermore, initiatives are taken to hold an international conference for 2008:

31 Jun -1 Jul 2008 Research Symposium on PBL.

7. Participation in conferences

7 – 9 Mar PBL Symposium, Singapore, Xiangyun Du, Mona Dahms

May Enhancing Learning at DIT, Dublin, Egon Moesby

31 May – 1 Jun Danish University Network (DUN) conference, Aalborg, Xiangyun Du, Palle Qvist

3 – 7 Jun Keynote at ALE conference, Toulouse
Active Learning in Engineering Education 4, 5, 6 June 2007
Institut National des Sciences Appliquées Toulouse, France
<http://congres.insa-toulouse.fr/ALE2007/index.php?lien=ale>
Anette Kolmos

1 – 9 Jun Keynote at the FIG Commission 2 Symposium “Knowledge is Power”, Prague, Czech Republic. Stig Enemark

16 Jun Keynote at the ESRI Education User Conference, San Diego, USA. Stig Enemark

22 –24 Jun ICREE International Conference on Research on Engineering Education, Honolulu, Anette Kolmos

24 – 29 Jun ASEE Annual Conference: American Society for Engineering Education, Annual conference, Honolulu, Anette Kolmos

27 – 29 Jun Diverse 2007 Conference, Lillehammer, Palle Qvist

1 – 4 Jul	SEFI and IGIP Joint Annual Conference 2007, Miskolc, Hungary, Anette Kolmos, Xiangyun Du
1 – 4 Oct	Keynote at 6th. ASEE Global Colloquium on Engineering Education, Istanbul, Turkey, Anette Kolmos
4 -7 Oct	China and Europe forum conference, Barcelona, Spain and Brussels, Belgium, Xiangyun Du
Oct	Conference held by AQU Catalunya, Lleida, Spain, Exemple d'una titulació d'Enginyeria a Aalborg University, Egon Moesby
19 – 20 Nov	Research Net Conference, Ellsinore, Palle Qvist
29 Nov - 9 Dec	International conference Engineering Education and Research, Melbourne, Australia, Xiangyun Du
3 – 5 Dec	2nd Regional Conference on Engineering Education 2007. Engineering Education: Towards Building World Class Human Capital, UTM, Malaysia, Mona Dahms
5 – 19 Dec	Conference Australia, Anette Kolmos, Keynote at AaeE conference, Melbourne, AaeE 2007: Eighteenth Annual Conference of the Australasian Association for Engineering Education, Melbourne, Australia, 9-12 December, 2007, http://www.cs.mu.oz.au/aaee2007/keynotes.html

8. Visits to Aalborg University

Every year, UCPBL has a lot of visitors. This year, UCPBL has been responsible for organising 21 visits at Aalborg University.

- 15-16 January, Toyama National College, Japan
President Masaaki Yoneda, Tetsuyuki Hongo, Hidemi Shirakawa, Shin Yoshida
- 25 January, University of Aveiro, Portugal
Vice Rector Antonio Brito Ferrari
- 25 January, Universidad Austral de Chile
Vice Dean Hector Noriega
- 14 February, UNESCO-IHE, Delft Holland
Wim Glas, Erick de Jong, Kala Vairavamoorthy, Nemanja Trifunovic

- 14 March, Advanced Institute of Industrial Technology, Japan
Yoshio Tozawa
- 17 April, Coventry University
Ian Dunn, Poul Ivey, Peter White, Raymond Farmer
- 30 April -3 May, Victoria University, Australia
Ian Campell
- 14 May, Jyväskylä University, Finland
Ritva Pyykkönen (30-40 persons)
- 21 May, Brigham Young University, Utah, USA
Robert H. Todd
- 21 May, Giessen-Friedberg Fachhochschule, Germany
Andreas Slemeyer
- 21-24 May, Sao Paulo Universidad, Brazil
Ulisses Araújo and Valéria Amorim Arantes
- 11-13 September, Victoria University, Australia
Stephen Bigger
- 13 September, Tecnológico de Monterrey, Mexico
Heriberto Leyva Ortiz and Jorge Alberto Pérez Ladron de Guevara
- 24-26 October, Ministry of Higher Education, Malaysia
Rosnah binti Rahmat (6 persons)
- 7 November, University of Strathclyde, Scotland
Deputy Principal Anne Hughes
- 15 November, Universidad de los Andres, Colombia
Director, Maria Isabel Patiño
- 20-21 November, Giessen-Freiberg University
Hartmut Weber, Peter Beck-Moretti

- 20-21 November, Cujae, Instituto Superior Politécnico José Antonio Echeverría, Havana, Cuba
Mario Morera

- 27 November, Notheastern University, P.R. China
Professor Lingling Luo

- 3 December, Southern Federal University, Rostov, Russia
Vice-Rector Natalia Izotova (11 persons)

- 20 December, University of Zaragoza, Spain
Assistant Professor Iván Lidón Lòpez

9. Publications

Establishing a global PBL community - initiatives by the UNESCO Chair in Problem Based Learning, [Anette Kolmos](#), [Mona Dahms](#), [Xiangyun Du](#). 2007 *Proceeding of The international Conference on Engineering Education and Research (Ineer) 2007* Melbourne, Australia, 2-7, Australia, December 2007

Introducing PBL to Foreign Students in International Engineering Programs., [Xiangyun Du](#), [Mona Dahms](#), [Lars Peter Jensen](#) and [Anette Kolmos](#) Kolmos, 2007 *Proceeding of The international Conference on Engineering Education and Research (Ineer) 2007* Melbourne, Australia, 2-7, Australia, December 2007

[Alignment of PBL and Assessment.](#) / [Kolmos, Anette](#) ; [Holgaard, Jette Egelund](#). 2007. s. 1-9
Konferencen: 1st. International Conference on Research in Engineering Education, nr. 1, Honolulu, USA, 22. juni 2007 - 24. juni 2007.

[Assessment methods in Problem Based and Project Based Learning.](#) / [Kolmos, Anette](#). 2007.
Konferencen: 6 th. ASEE Global Colloquium on Engineering Education, nr. 6, Istanbul, Tyrkiet, 1. oktober 2007 - 4. oktober 2007.

[Assessment of Project and Problem Based Learning.](#) / [Holgaard, Jette Egelund](#) ; [Kolmos, Anette](#) ; [Du, Xiangyun](#). I: *Joining Forces in Engineering Education towards Excellence : Proceedings SEFI and IGIP Joint Annual Conference 2007.* 2007. 10 s.

[Czy warto wprowadzić problem i project based learning?](#) / [Kolmos, Anette](#) ; [Enemark, Stig](#) ; [Du, Xiangyun](#) ; [Moesby, Egon](#). I: *Innowacje.* 2007 ; vol. 1, s. 99-112

[Gender Inclusiveness in Engineering Education : Is Problem Based Learning Environment a Recipe?](#) / [Du, Xiangyun](#) ; [Kolmos, Anette](#). I: *2007 ASEE Annual Conference Program : Final Conference Program & Proceedings, June 24-27. Honolulu, USA. USA : American Society for Engineering Education, 2007.* 12 s.

[History of problem-based and project-based learning.](#) / de Graaff, Erik ; [Kolmos, Anette](#). I: *Management of change : implementation of problem-based and project-based learning in engineering.* red. / Erik de Graaff ; Anette Kolmos. Rotterdam : Sense Publishers, 2007. s. 1-8

[Management of change : implementation of problem-based and project-based learning in engineering.](#) / de Graaff, Erik (Redaktør) ; [Kolmos, Anette \(Redaktør\)](#). Rotterdam : Sense Publishers, 2007. 221 s.

[PBL as a Tool for Staff Development in the Educational Transformation towards PBL : A Case of an International E-learning Program for Staff Development.](#) / [Du, Xiangyun](#) ; [Kolmos, Anette](#) ; [Qvist, Palle](#). I: *International Problem-Based Learning Symposium, 7-9 March 2007 Symposium Proceedings : Re-inventing PBL.* Singapore : Centre for Educational Development, Republic Polytechnic, Singapore, 2007. s. 254-270

[Process of changing to PBL.](#) / [Kolmos, Anette](#) ; de Graaff, Erik. I: *Management of change : implementation of problem-based and project-based learning in engineering.* red. / Erik de Graaff ; Anette Kolmos. Rotterdam : Sense Publishers, 2007. s. 31-43

[Situationsbaseret projektvejledning.](#) / [Kolmos, Anette](#) ; [Holgaard, Jette Egelund](#). I: *Dansk Universitetspædagogisk Tidsskrift.* 2007 ; vol. 2, nr. 3, Maj. s. 54-62

[Intercultural Learning in a PBL Environment - Developing Intercultural Competencies for Teaching Staff.](#) / [Du, Xiangyun](#) ; Reimann, A. ; Ulsig, T.. I: Joining Forces in Engineering Education towards Excellence : Proceedings of SEFI and IGIP Joint Annual Conference 2007. Hungary : University of Miskolc, 2007. 13 s.

[Power, Democracy and Problem-Based Learning.](#) / [Du, Xiangyun](#) ; [Stentoft, Diana](#) ; [Dahms, Mona-Lisa](#). I: International Problem-Based Learning Symposium, 7-9 March 2007, Symposium Proceedings : Re-inventing PBL. Singapore : Centre for Education Development, Republic Politechnic, Singapore, 2007. s. 271-284

[Problem Based Learning in Engineering Education : a New International Master's programme for Staff Development.](#) / [Dahms, Mona-Lisa](#) ; Sauerbier, Gabriele ; Stubbe, Korinna. I: Engineering Education - The Priority for Global Development : Proceedings - 35th International IGIP Symposium, 18th-21st September, 2006, Tallinn. 2007. s. 485-490

[Environment, belonging and social world in the Aalborg Model : preliminary theoretical explanation.](#) / [Spliid, Claus Christian Monrad](#) ; [Qvist, Palle](#). 2007. s. 1-15 Konferencen: Dun Conference 2007, nr. 13, Aalborg, Danmark, 31. maj 2007 - 1. juni 2007.

[Video lectures, PowerPoint presentations and the feeling of learning.](#) / [Qvist, Palle](#). 2007. s. 1-18 Konferencen: The Diverse conference 2007, nr. 7, Lillehammer, Norge, 27. juni 0007 - 29. juni 0007.

[Experiences with Integrating Individuality in Project-orientated and Problem-based Learning POPBL.](#) / [Kørnøv, Lone](#) ; [Johannsen, Hans Henrik W.](#) ; [Moesby, Egon](#). I: The International Journal of Engineering Education. 2007 ; vol. 23, nr. 5, s. 947-953

[What is an effective approach to introducing PBL/POPBL in an institution : A model for making the change to PBL/POPBL as an alternative approach to Higher Education institutions.](#) / [Moesby, Egon](#). I 20. 2007. 185 s.

[Promoting the Interaction between Education, Research and Professional Practice.](#) / [Enemark, Stig](#). In: Scientia Est Potentia - Knowledge is Power : proceedings of the symposium dedicated to the development of curricula organized jointly by FIG Commission 2 and the Faculty of Civil Engineering CTU in Prague. Prag : Faculty of Civil Engineering, CTU, 2007. p. 21-36