

Problem based learning

Seminar

A Seminar at
Soran University (SUN)



By Dr. Hewa H. Omar

Seminar arranged by SUN's

Faculty of Engineering

soran.edu.iq

Abstract

Compared to traditional lecture style teaching, visualization and/or demonstration based teaching, project and/or problem based learning (PBL) are becoming increasingly popular in many word Universities as these teaching techniques are found to be more collaborative, integrative and effective in engaging learners and instructors. This seminar examines the theoretical foundations of the teaching method known as Problem-Based Learning (PBL). We discuss the origins of the approach and its application to the field of engineering education, and also provide a number of basic guidelines. Practical aspects concerning the design and implementation of PBL are considered, along with various studies into its use with the technical sciences. Finally, we report on research into the adoption of PBL for the teaching of engineering courses during the academic years which published in 2 research articles.

*Objectives of the seminar:

- 1- Introducing style teaching project and/or problem based learning (PBL).
- 2- Implementation of PBL and its application to the field of engineering education, and also provide a number of basic guidelines.
- 3- Review on research into the adoption of PBL for the teaching of engineering courses during the academic years.

پوخته

به بهر آورد له گه‌ل فێرکردنی شیوازی وانهوتنهوه تهقلیدییه‌کان، وانهوتنهوه له‌سه‌ر بنه‌مای ببنین و نمایشکردن، له‌ ئیستا دا زۆریک له‌ زانکۆکانی جیهاندا (PBL) فێربوونی له‌ ریگای پرۆژه و هه‌روه‌ها فێربون له‌سه‌ر بنه‌مای کێشه زیاتر گرنگیه‌کی پێ ده‌دریت چونکه‌ ئهم ته‌کنیکانه‌ی وانهوتنهوه زیاتر هاوبه‌ش و یه‌کگرتوو و کاریگه‌رتن به‌ به‌شداریکردنی فێرخوازان و مامۆستایان. ئهم سیمیناره‌ بنه‌ما تیۆریه‌کانی شیوازی وانهوتنهوه به‌ ریگای ته‌کنیکی فێربوون له‌ سه‌ر بنه‌مای کێشه ده‌کۆلێته‌وه. باس له‌ سه‌رچاوه‌ی ئهو ریپازه‌ و به‌کاره‌ینانی بۆ بواری په‌روه‌رده‌ی له‌ به‌شه‌ ئه‌ندازیاریه‌کان ده‌کەین، هه‌روه‌ها کۆمه‌ڵێک ری‌نمایی به‌ره‌تی ده‌خه‌ینه‌روو. لایه‌نه‌ پراکتیکیه‌کان سه‌بارمه‌ت به‌ دیزاین و جێبه‌جێکردنی ته‌کنیکی فێربوون له‌ سه‌ر بنه‌مای کێشه تیشکی ده‌خه‌ریته‌ سه‌ر، له‌گه‌ڵ لێکۆلینه‌وه

جۆر اوچۆر مکان سهبارەت به بهکارهێنانی لهگهڵ زانسته تهکنیکییهکان. له کۆتاییدا، باس له ٢ توێژینهوه دهکەین سهبارەت به جێبهجی کردنی تهکنیکی فیربوونی له سهڕ بنهماي کیشه له بواری نهندازیاری.

الملخص

مقارنةً بالتدريس التقليدي بأسلوب المحاضرات ، التصور والتوضيح القائم على التدريس، أصبح التعلم القائم على المشاريع والتعلم القائم على حل المشكلات أكثر أهمية في العديد من جامعات العالم حيث تم العثور على تقنيات التدريس هذه لتكون أكثر تعاونًا وتكاملاً وفعالية في إشراك المتعلمين والمدرسين. تبحث هذه الندوة في الأسس النظرية لطريقة التدريس المعروفة باسم التعلم القائم على حل المشكلات. نناقش أصول النهج وتطبيقه في مجال التعليم الهندسي ، ونقدم أيضًا عددًا من الإرشادات الأساسية. يتم النظر في الجوانب العملية المتعلقة بتصميم وتنفيذ التعلم القائم على حل المشكلات ، إلى جانب الدراسات المختلفة لاستخدامه مع العلوم التقنية. أخيرًا ، قدمنا تقريرًا عن البحث في تبني التعلم القائم على حل المشكلات لتدريس مساقات الهندسة خلال السنوات الأكاديمية والذي تم نشره في مقالتي.

Speaker Profile



Dr. Hewa Hussein Omar (B.Sc., M.Sc., PhD) is a lecturer and head of department of Petroleum Engineering (DPET) at Soran University's Faculty of Engineering (FENG) (SUN). In 2006, he earned a B.Sc. in mechanical Engineering from Salahaddin University. In 2009, he came to Russia to study at Moscow Aviation Institute at the Department of the Theory of Aircraft Engines, but first he took a preparatory course in the Russian language and after 8 months, after completing the preparatory course, he entered the Moscow Aviation Institute. In 2014, he earned a bachelor's degree with honors in aviation and rocket engineering, and in 2016 he earned a master's degree with honors in aircraft engines from Moscow Aviation Institute. From 2016 to 2017, he worked as an assistant lecturer at Soran at the Department of Engineering Chemistry and from 2019 to 2022, he worked as an assistant lecturer at Samara National research University (Russia-Samara,) at the Department of theory of aircraft engine. The area of his interest is thermal, mechanical, power, and aircraft engineering.

About Soran University

[Soran University \(SUN\)](#) is located in the city of Soran, which is about a two-hour drive north-east of [Erbil](#) (Arbil, Hewlér), the capital of the [Kurdistan Region](#) of Iraq (KRIQ). The city is flanked by the famous Korek, Zozik, Henderén, and Biradost mountains. The medieval mountain village of [Rewandiz](#) ([Rawanduz](#), [رەواندز](#)) is a stone-cast away, and the two cities share this lovely, harmonious upland. While waiting for its green, environmentally friendly building to be erected on a hilltop overlooking the cities of Soran and Rewandiz, its existing city campus has been meticulously set out to accommodate the lovely natural landscape. The new campus will be the first of its type, being walkable, balanced, powered by renewable energy, and compliant with all international environmental regulations. There are 5 Faculties in [SUN](#); [Faculty of Arts](#) (FAAR), [Faculty of Science](#) (FSCN), [Faculty of Education](#) (FEDU), [Faculty of Law](#), Political Science, and Management (FLAW/PSM), and [Faculty of Engineering](#) (FENG). Also, there is SUN research centre. Moreover, at SUN, there is a Language Center. SUN signed many Memoranda of Understandings (MoU) with many International Universities.

How to get here

Soran University (SUN) is located in the heart of the city of Soran. The main city campus is easily found on Google Maps for direction.

Please join us!



Soran University (SUN) main campus, Computer LAB.



12:30 am to 01:30



Monday 24th October 2022