

Foreign Language Learning, Today And Tomorrow: Essays In Honor Of Emma M. Birkmaier

Page 1 of 9 Oorspronklike Navorsing

Paarprogrammering: Meer as net saamwerk in pare

Author:
Elsa Mentz¹

Affiliation:
¹Faculty of Education Sciences, North-West University, Potchefstroom Campus, South Africa

Correspondence to:
Elsa Mentz

Email:
elsa.mentz@nwu.ac.za

Postal address:
Private Bag X6001, Potchefstroom 2520, South Africa

Dates:
Received: 25 May 2011
Accepted: 02 Feb. 2012
Published: 18 Apr. 2012

How to cite this article:
Mentz, E., 2012, "Paarprogrammering: Meer as net saamwerk in pare", *Suid-Afrikaanse Tydskrif vir Natuurwetenskap en Tegnologie* 31(1), Art. #32, 9 pages. <http://dx.doi.org/10.4102/satnt.v31i1.32>

Paarprogrammering het in die industrie ontstaan waar die fokus op die ontwikkeling van programme teen die mees koste- en tyd-effektiewe wyse binne die raamwerk van kwaliteit behoort plaas te vind. Die klem is in hierdie konteks: geplaas op die feit dat 'n bepaalde programkode nie deur een persoon alleen ontwikkel behoort te word nie, maar dat twee persone mekaar kan bystaan om 'n beter programkode te skryf, en mekaar ook kan aanspoor om vinniger te werk. Die probleem met hierdie benadering was egter dat beginner-programmeerders in die industrie nie vooraf op tersiêre vlak genoegsaam met sosiale vaardighede bemaatig is om saam te werk aan programkode nie. Die eise van die industrie, veral die sterker nadruk op samewerking in programmering, het meegebring dat paarprogrammering in die laat negentigerjare ook in die tersiêre opleiding van programmeerders veld begin wen het. Die pedagogiese beginsels waarop enige onderrig-leerstrategie gebou moet word, is in hierdie proses egter grootliks oor die hoof gesien. Hierdie artikel doen eerstens verslag oor 'n ondersoek rakende die semantiese en ontologiese onderskeid tussen kooperatiewe (co-operative) en samewerkende (collaborative) leer, en tweedens dat paarprogrammering, binne die konteks van 'n sosiaal-konstruktivistiese benadering tot onderrig en leer as 'n samewerkende onderrig-leer strategie beskou kan word. Paarprogrammering is méér as bloot om twee leerders en/of studente saam aan 'n opdrag of programmeertaak te laat werk. Die meer gestruktureerde wyse, waarop paarprogrammering geïmplementeer moet word, stem ooreen met die beginsels van kooperatiewe leer. Daar word tot die gevolgtrekking gekom dat die korrekte pedagogiese toepassing van paarprogrammering as kooperatiewe onder-leerstrategie in tersiêre onderwys leerwinst binne die onderrig-leersituasie verhoog.

Pair programming: more than just working together in pairs. Pair programming originated in the industry where focus is placed on the development of a programme at the most cost- and time-effective manner, and within the parameters of quality. In this context, a specific programming code is not developed individually; rather, two people work together in order to ensure a higher quality programming code and to motivate each other to work at a faster pace. The problem with this approach was that novice programmers lacked the social skills to work in pairs as they had not been exposed to this sufficiently at tertiary level. The demand of the industry, especially in terms of programmers needing to be able to programme together, led to the incorporation of pair programming at tertiary level in the late nineties. The pedagogical principles on which any teaching-learning strategy should be built were, however, largely overlooked during this process. This article firstly looks into the semantic and ontological differences between co-operative and collaborative learning and secondly argues that pair programming, within the context of a social constructivist approach to teaching and learning, can be seen as a co-operative teaching-learning strategy. Pair programming is more than just allowing two students to work together on a programming task. The more structured way, in which pair programming needs to be implemented, concurs with the principles of co-operative learning. The article concludes that the correct pedagogical application of pair programming as a co-operative teaching-learning strategy in tertiary education will result in improved learning capital.

Inleiding

Die omlaer van programmeringsvaardighede word gewoonlik as 'n komplekse taak beskou. Dit is gerig op die vermoë om probleme in 'n komplekse omgewing op te los en veres 'n groot mate van kreatiwiteit, besluitneming, probleemoplossings- en hoëvlak-denkvaardighede. Hoe kognitiewe eise word gevolglik aan die uitvoering van 'n programmeeropdrag gestel (Baltjeppally et al. 2009). Die ingewikkeldheid daarvan word bewys deur die feit dat tussen 30% en 60% van alle eerstejaar-innames in inleidende programmering by universiteite wêreldwyd die module druip (Dehnadi &

© 2012. The Authors.
Licensee: ADSIS
Open Journals. This work
is licensed under the
Creative Commons
Attribution License.

<http://www.satnt.ac.za> [doi:10.4102/satnt.v31i1.32](http://dx.doi.org/10.4102/satnt.v31i1.32)

Essays in Honor of Emma M. Birkmaier Foreign Language Learning, Today and Tomorrow is a collection of papers that attempts to shed lights into the. Foreign language learning, today and tomorrow: essays in honor of Emma M. Birkmaier. Front Cover. Jermaine D. Arendt. Pergamon Press, - Language. Foreign Language Learning, Today and Tomorrow is a collection of papers Today and Tomorrow: Essays in Honor of Emma M. Birkmaier. Foreign Language Learning, Today and Tomorrow: Essays in Honor of Emma M. Birkmaier. Arendt, Jermaine D., Ed.; And Others. The following essays are included: (1) "Futurism in Foreign Language Learning" by Frank M. Grittner and Percy. Buy Foreign Language Learning, Today and Tomorrow: Essays in Honor of Emma M. Birkmaier by Jermaine D. Arendt (ISBN:) from Amazon's. Download & Read Online with Best Experience File Name: Foreign Language Learning Today And Tomorrow Essays In Honor Of Emma M. Birkmaier PDF. Foreign Language Learning, Today and Tomorrow: Essays in Honor of Emma M. Birkmaier: Jermaine D. Arendt: Books - amazing-learning.com Foreign language learning, today and tomorrow: essays in honor of Emma M. Birkmaier / edited By Jermaine D. Arendt, Dale L. Lange, Pamela J. Myers. Foreign language learning, today and tomorrow: essays in honor of Emma M. Birkmaier / edited By Jermaine D. Arendt, Dale L. Lange, Pamela J. Myers. Book . Get this from a library! Foreign language learning, today and tomorrow: essays in honor of Emma M. Birkmaier. [Emma Marie Birkmaier; Jermaine D Arendt;. Download Foreign Language Learning, Today and Tomorrow. Essays in by Jermaine D. Arendt PDF Tomorrow. Essays in Honor of Emma M. Birkmaier PDF. amazing-learning.com - Buy Foreign Language Learning, Today and Tomorrow: Essays in Honor of Emma M. Birkmaier book online at best prices in India on amazing-learning.com Foreign Language Learning, Today and Tomorrow: Essays in Honor of Emma M. Birkmaier by Jermaine D. Arendt, Dale L. Lange, Pamela J. Myers - Books on. Results - of Foreign Language Learning, Today And. Tomorrow: Essays In Honor Of Emma M . Birkmaier by Emma Marie Birkmaier ; Jermaine D.

[\[PDF\] The Healing Power Within: How To Tap The Infinite Potential Within Yourself](#)

[\[PDF\] Jean-Paul Sartre His Philosophy](#)

[\[PDF\] Communication And Knowledge: An Investigation In Rhetorical Epistemology](#)

[\[PDF\] Spanish Poetry Of The Golden Age](#)

[\[PDF\] The St. Martins Guide To Public Speaking](#)

[\[PDF\] Protestation Returns For Cambridgeshire 1641](#)

[\[PDF\] After Deschooling, What](#)