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The design, development and implementation of electronic professional portfolios for educators

by

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of the requirements for the degree

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in
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Of the Faculty of Education

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DEO GLORIA

To my parents.

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Terminology used in this study

Academic	It has to do with learning and is related to a learning institution.
Analyse	To examine and find the essence, elements or structure of something.
Analysis	A detailed examination of the essence, elements or structure of a concept.
Assessment	Appraisal or valuation.
Assessment criteria	Criteria or standards something is judged by.
Bulletin board	An electronic communication platform where messages are submitted.
CD ROM	Compact disc read only memory
Code of conduct	A standardised norm of behaviour.
Competencies	The ability to perform specific tasks, abilities.
Component	A part of a larger whole.
Design	A preliminary plan or concept for the making or production of a specific product.
Development	To bring into existence or in a visible state.
Education system	The official guidelines that prescribes the principles of the teaching and learning model of a country.
Education	Having to do with teaching and learning.
Educator	Any person who teaches, educates or train people.
Electronic portfolio	A purposeful collection of work that is presented by electronic means and displays an individual's efforts, progress and achievements in one or more areas.
E-mail	An electronic mail service.
Evaluation	Assessment or appraisal of something.
Flexible learning	Learning that is flexible in terms of mode, time and location.
Hardware	Technological peripherals e.g. computers, printers.
Implementation	To put a design or plan into effect.
Internet	An international computer network.
Learner	A pupil or student who is taught or trained by an educator.
List server	An electronic communication platform where messages are submitted and distributed to subscribers of the list server.

Look and feel	The unique appearance of an electronic presentation.
Model	A simplified description of a system and/or a graphic representation of a proposed structure.
Module	One subject of a qualification.
Occupational	Referring to an occupation.
Outcomes	What the learner should be able to do or demonstrate as the result of a learning programme.
Portfolio	A purposeful collection of work and displays an individual's efforts, progress and achievements in one or more areas.
Procedure	The mode of performing a task or a series of actions conducted in a certain order or manner.
Process	A series of stages of performing a task
Professional	Belonging to a profession and having the skill of a professional.
Qualification	All diplomas, certificates and degrees presented by educational institutions.
Skills	Abilities, expertness.
Software	Computer programmes.
Standards	A norm or principle to which others should conform.
Telematic Education	A system of flexible learning including different education modes and can include distance education.

Acronyms used in this study

CAE	Computer-assisted Education
DOE	Department of Education
ETQA	Education and Training Qualifications Authority
FET	Further Education and Training
GET	General Education and Training
HET	Higher Education and Training
IS	Information Science
ISP	Internet Service Provider
IT	Information Technology
MA	Master in Arts
MEd	Master in Education
NSB	National Standards Body
NQF	National Qualifications Framework
OBA	Outcomes-based Assessment
OBE	Outcomes-based Education
SACE	South African Council for Educators
SAQA	South African Qualifications Authority
SGB	Standards Generating Body
TLO	Teaching and Learning Outcomes
WWW	World Wide Web

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Opsomming

Die ontwerp, ontwikkeling en implementering van elektroniese professionele portefeuljes vir opvoeders

deur

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Graad: Philosophiae Doctor in Rekenaargesteunde Onderwys

Die implementering van assessering met behulp van elektroniese portefeuljes moet binne 'n spesifieke raamwerk of model plaasvind. Hierdie navorsing is geïnisieer om so 'n model daar te stel en fokus daarom op:

- Die prosessese en prosedures wat gevolg word tydens die implementering van hierdie assessering;
- Die insette van die opvoeder voor implementering;
- Die opvoeder se rol rakende die voorsiening van toepaslike werktuie om elektroniese portefeuljes saam te stel;
- Die assesseringskriteria en assesseringsinstrument(e).

Die Suid-Afrikaanse onderwysstelsel het sedert 1995 betekenisvolle veranderings ondergaan. Hierdie nuwe onderwysstelsel is hoofsaaklik op uitkomsgebaseerde onderwys (UGO) gebaseer, met die uitgangspunt dat leerders aan die einde van die leerproses in staat moet wees om iets te kan *doen*.

Portefeuljes kan in UGO gebruik word, want dit voorsien die opvoeder van tasbare bewyse van 'n leerder se vermoëns. Elektroniese portefeuljes is 'n betekenisvolle versameling van werk wat op 'n elektroniese wyse aangebied word en 'n leerder se vordering en prestasies insluit. Die gebruik van elektroniese portefeuljes is baie gewild omdat dit 'n "draagbare" en toeganklike werktuig vir lewenslange leer is.

Die South African Council for Educators (SACE) het ontstaan om as beskermer van die professionalisme van opvoeders op te tree en alle opvoeders word verplig om by die SACE te registreer. Daar moet ook elke 3 jaar aansoek gedoen word om herregistrasie en elektroniese portefeuljes kan met sukses aangewend word om bewyse van professionele groei en ontwikkeling aan te bied.

Assessering met behulp van portefeuljes is in een van die modules van die MEd (Rekenaargesteunde Onderwys) van die Universiteit van Pretoria geïmplementeer. Ten einde leerders in staat te stel om elektronies portefeuljes te ontwikkel, is 'n stel portefeulje-template in Microsoft Word 97, met aanlyngidse ontwerp en ontwikkel. Vir die leerders wat oor 'n hoër vlak van rekenaarvaardighede beskik, is 'n stel webgebaseerde portefeulje-template ontwikkel.

Assessering van die elektroniese portefeuljes word met behulp van 'n assesseringsinstrument gedoen en alhoewel dit die eerste keer was wat hierdie groep leerders van elektroniese portefeuljes gebruik gemaak het, het hulle aangedui dat hulle dit graag sou wou uitbrei om die ander modules in te sluit.

Die voorgestelde model vir die implementering van assessering met behulp van elektroniese portefeuljes bestaan uit vyf fases:

- Die analisefase – 'n analise van die doel en komponente van die elektroniese portefeulje, die verskillende vaardigheidsvlakke van die leerders en die beskikbare infrastruktuur word gedoen;
- Die ontwerp- en ontwikkelingsfase – meerdere opsies of strategieë word daargestel om 'n diverse groep leerders in staat te stel om elektroniese portefeuljes te ontwikkel en 'n toepaslike assesseringsinstrument word ontwikkel.
- Die sensiteringsfase – die leerders word bewus gemaak van die belangrikheid van elektroniese portefeuljes en word gemotiveer om dit aan te wend as 'n werktuig vir lewenslange leer;
- Die saamstelfase – die leerders stel hulle eie elektroniese portefeuljes saam, volgens die gespesifiseerde prosesse en prosedures;
- Die assesseringsfase - formele opvoederassessering, meer informele portuurgroepassessering en selfassessering vind plaas.

Hierdie navorsingsprojek het hopelik die meriete van die ontwikkeling van elektroniese portefeuljes vir opvoeders daargestel en beklemtoon dat elektroniese, professionele portefeuljes as 'n nuttige werktuig deur opvoeders aangewend kan word!

Sleutelterme: Elektroniese portefeuljes; Assessering; Evaluering; Internet; Uitkomsgebaseerde Onderwys; Vaardighede; Model; Portefeulje-assessering; Onderwysersopleiding; Uitkomsgebaseerde Assessering.

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Abstract

The design, development and implementation of electronic professional portfolios for educators

by

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Department: Teaching and Training Studies

Degree: Philosophiae Doctor in Computer-assisted Education

The implementation of electronic portfolio assessment should be done within a specific framework or model. This research was initiated to provide such a model and it focuses on:

- The processes and procedures followed when implementing electronic portfolio assessment;
- The input of the educator before implementation;
- The educator's role regarding the provision of applicable tools to compile electronic portfolios;
- The assessment criteria and assessment instrument(s).

The South African education system has changed considerably since 1995. This new education system is based mainly on Outcomes-based Education (OBE) whose main principle is that learners should be able *to do* something at the end of any learning process.

Portfolios can be used in OBE because it provides the educator with visible proof of learners' accomplishments. Electronic portfolios are purposeful collections of work, presented by electronic means and displays learners' efforts, progress and achievements. The use of electronic portfolios is gaining popularity because it is a portable and accessible tool for lifelong learning.

The South African Council for Educators (SACE) was established to act as guardian of professionalism of educators and all educators are compelled to register with the SACE. Re-registration takes place every 3 years and electronic portfolios can be used successfully to present the council with evidence regarding the professional growth and development of educators.

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Portfolio assessment was incorporated as part of one of the modules of the MEd (Computer-assisted Education) at the University of Pretoria. To enable these MEd learners to compile electronic portfolios, a set of portfolio templates with on-line guides was designed and developed in Microsoft Word 97. For the more computer skilled learners, an additional set of webbased templates was developed.

The electronic portfolios were assessed according to an assessment instrument and although it was the first electronic portfolios compiled by this group of learners, they indicated that they would like to expand their electronic portfolios to include information and assignments regarding other modules too.

The suggested model for the implementation of electronic portfolio assessment comprises of five phases:

- The analysis phase - an analysis of the purpose and components of the electronic portfolio, the different skill levels of the learners and the available infrastructure should be done;
- The design and development phase - multiple pathways or strategies to enable a diverse group of learners to compile electronic portfolios and a suitable assessment instrument should be developed;
- The sensitising phase - the learners should be made aware of the importance of electronic portfolios and should be motivated to utilise it as a tool for lifelong learning;
- The compilation phase – the learners should compile the electronic portfolios according to the specified processes and procedures;
- The assessment phase - formal educator assessment, more informal peer assessment and self-assessment should be done.

Hopefully, this research project have demonstrated the outstanding merit of the developing and implementing of electronic, professional portfolios for educators. It can be derived from this study that the electronic, professional portfolio is an authentic tool to document teaching excellence!

Key terms: Electronic portfolios; Assessment; Evaluation; Internet; Outcomes-based Education; Competencies; Model; Portfolio assessment; Educator Training; Outcomes-based Assessment.