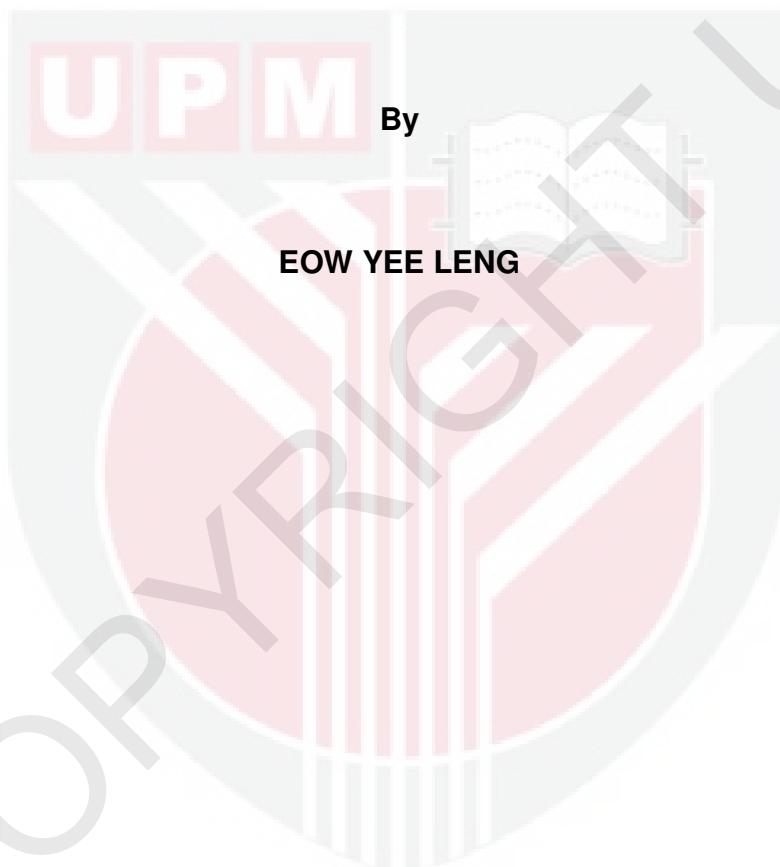**UNIVERSITI PUTRA MALAYSIA**

APPLICATION OF APPRECIATIVE LEARNING APPROACH IN COMPUTER GAMES DEVELOPMENT TOWARDS PROMOTING STUDENT CREATIVITY AND INTRINSIC MOTIVATION

EOW YEE LENG

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APPLICATION OF APPRECIATIVE LEARNING APPROACH IN COMPUTER GAMES DEVELOPMENT TOWARDS PROMOTING STUDENT CREATIVITY AND INTRINSIC MOTIVATION

By

EOW YEE LENG

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

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Abstract of thesis presented to Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Doctor of Philosophy

APPLICATION OF APPRECIATIVE LEARNING APPROACH IN COMPUTER GAMES DEVELOPMENT TOWARDS PROMOTING STUDENT CREATIVITY AND INTRINSIC MOTIVATION

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June 2011

Chairman: Wan Zah Wan Ali, PhD

Faculty: Faculty of Educational Studies

The purpose of this action research study was to understand the application of appreciative learning approach in computer games development environment towards promoting of form one gamer students' creativity (product's creativity, creative perception, and creative process) and intrinsic motivation. Subsequently, actions were taken to improve the application of appreciative learning approach in computer games development environment, attuned to the subjects' needs and preferences.

The study consisted of three cycles and the subjects were form one gamer students. Instruments used were Computer Game Assessment Inventory (product's creativity), Khatena-Torrance Creative Perception Inventory (creative

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perception), Creative Process Instrument (creative process), and Intrinsic Motivation Inventory (intrinsic motivation). Qualitative methodology was incorporated to build better understanding on the improvement possibilities for appreciative learning approach in computer games development environment towards promoting of form one gamer students' creativity and intrinsic motivation. Therefore, qualitative data were derived from interviews, students' products, logbooks, and visual captures. Actions taken at each cycle of the study were based on both quantitative and qualitative data gathered from the students as the main stakeholders,

Paired-samples t-test analyses using SPSS 15.0 displayed remarkable promoting of students' creativity and intrinsic motivation at an alpha level of .05 from cycle to cycle for products creativity (mean score of 4.22 → 4.82 → 5.50); creative perception (mean score of 71.82 → 74.53 → 76.90); creative process (mean score of 3.83 → 4.27 → 4.58); and intrinsic motivation (mean score of 6.02 → 6.20 → 6.50). Qualitative data gathered justified the statistical data as well. It indicated that most students' needs and preferences were fulfilled; and problems faced were minimised through from cycle to cycle. Students favoured design stage the most and disliked dream stage. Qualitative data also served as credibility assurances to quantitative data.

Findings from this action research study concluded appreciative learning approach in computer games development environment as having the potential

in promoting the form one gamer students' creativity (product's creativity, creative perception, and creative process) and intrinsic motivation. Nevertheless, throughout the study, while actions taken were successfully working out with some students, it caused glitches on others. The change process in action research has an open starting point and no absolute ending point. As a result, there are still probable actions to be undertaken to generate transformational possibilities for appreciative learning approach as a pedagogical strategy in future researches.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Doktor Falsafah

PENGAPLIKASIAN PENDEKATAN PEMBELAJARAN APPRESIASI DALAM PEMBANGUNAN PERMAINAN KOMPUTER KE ARAH PEMPROMOSIAN KREATIVI DAN MOTIVASI INTRINSIK PELAJAR

Oleh

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Jun 2011

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Fakulti: Fakulti Pengajian Pendidikan

Tujuan kajian tindakan ini adalah untuk memahami pengaplikasian pendekatan pembelajaran appresiasi dalam persekitaran pembanguan permainan komputer ke arah pempromosian kreativiti (kreativiti produk, persepsi kreatif, dan proses kreatif) dan motivasi intrinsik pelajar *gamer* tingkatan satu. Seterusnya, tindakan telah diambil untuk menambahbaik pengaplikasian pendekatan pembelajaran appresiasi dalam persekitaran pembanguan permainan komputer, selaras dengan keperluan dan kehendak subjek.

Kajian tindakan ini terdiri daripada tiga kitaran dan subjeknya terdiri daripada pelajar *gamer* tingkatan satu. Instrumen-instrumen yang digunakan adalah *Computer Game Assessment Inventory* (kreativiti produk), *Khatena-Torrance Creative Perception Inventory* (persepsi kreatif), *Creative Process Instrument*

(proses kreatif), and *Intrinsic Motivation Inventory* (motivasi intrinsik). Kaedah kualitatif turut digabungjalin untuk memahami kemungkinan-kemungkinan menambahbaik pendekatan pembelajaran appresiatif dalam persekitaran pembangunan permainan komputer ke arah pempromosian kreativiti dan motivasi intrinsik pelajar *gamer* tingkatan satu. Sehubungan dengan itu, data kualitatif diperolehi melalui temuramah, produk pelajar, buku log pelajar, dan tangkapan visual. Tindakan yang diambil pada setiap kitaran adalah berdasarkan kedua-dua data kuantitatif dan kualitatif yang diperolehi daripada pelajar-pelajar, sebagai subjek yang berkepentingan.

Analisis *paired-samples t-test* menggunakan SPSS 15.0 memaparkan pempromosian kreativiti dan motivasi intrinsik pelajar di tahap yang agak baik pada nilai alpha .05 dari kitaran ke kitaran untuk kreativiti produk (skor purata 4.22 → 4.82 → 5.50); persepsi kreatif (skor purata 71.82 → 74.53 → 76.90); proses kreatif (skor purata 3.83 → 4.27 → 4.58); dan motivasi intrinsik (skor purata 6.02 → 6.20 → 6.50). Data kualitatif turut menjustifikasi data statistikal yang diperolehi. Data tersebut menunjukkan kebanyakan keperluan dan kehendak pelajar-pelajar telah dipenuhi, dan masalah yang dihadapi telah diminimumkan dari kitaran ke kitaran. Peringkat rekabentuk paling disukai manakala peringkat impian kurang diminati pelajar. Data kualitatif turut berfungsi sebagai jaminan kredibiliti data kuantitatif.

Dapatan daripada kajian tindakan ini menunjukkan pendekatan pembelajaran appresiatif dalam persekitaran pembangunan permainan komputer berpotensi mempromosi kreativiti (kreativiti produk, persepsi kreatif, dan proses kreatif) dan motivasi intrinsik pelajar *gamer* tingkatan satu. Walaupun tindakan yang diambil berjaya memenuhi kehendak kebanyakan pelajar, namun ia menimbulkan ketidakselesaan pada sesetengah pelajar lain. Proses perubahan dalam kajian tindakan mempunyai titik permulaan terbuka dan tiada titik penamatan yang muktamad. Oleh itu, masih terdapat kebarangkalian tindakan yang belum diambil dalam menjana kemungkinan transformasi untuk pendekatan pembelajaran appresiatif sebagai satu strategi pedagogi dalam penyelidikan akan datang.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

EOW YEE LENG

Date: 23 June 2011

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