THE HONG KONG
POLYTECHNIC UNIVERSITY

Ref. No.
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Projects on Promoting Outcome-Based Approaches in Student Learning 2007-08
Application for OBA Funding

PART I: General Information

1. **Title**
   Design Play Toolkit - Interactive Education Toolkit Integrating of Capstone Project Development Processes for School of Design

2. **Name(s) of Applicant(s)**

   Project Leader

Name	Dept	Post	Groupwise	Ext.
Rémi LECLERC	SD	Lecturer	Remi.Leclerc@inet.polyu.edu.hk	2766 5492

   Team Member(s)

Name	Dept	Post	Groupwise	Ext.
Bruce WAN	SD	Lecturer	Bruce.Wan@inet.polyu.edu.hk	3400 8264

3. **Total funding requested**

4. **Expected duration of project:** _____20_____ **months**
   Proposed commencement date: May 15th 2008
   Expected completion date: January 15th 2010

PART II: DETAILS OF PROPOSAL

1. Project objectives and significance

(What are your objectives in initiating this project? How does it align with institutional goals and targets in implementing outcome-based approaches in student learning?)

Project background

Laying appropriate foundations for the development of a project is perceived and generally accepted in the design discipline as insurance for a successful outcome, a guarantee of success. Or so it seems.

Through learning by doing, School of Design (SD) students at The Hong Kong Polytechnic University (PolyU) are acquiring the skills necessary for defining such foundational project components as a project brief or a design process.

However, while they should be enjoying the process, many are struggling to produce outcomes that are relevant to these processes, hence failing to create appropriate learning and design value from their projects.

This suggests there may be discontinuities in their network of ambitions and perspectives, thus threatening their attainment of learning outcomes, more specifically in Capstone projects, where students are required to demonstrate holistically their competence in line with the programme outcomes, integrating generic competences such as design brief analysis, project planning, or research and analysis into formal academic knowledge and professional skills.

An initial enquiry into the reality of students' experience of the initial project development phases leading up to a formulation of a design statement and early specifications for a design concept has provided insight into the critical process within student projects. More specifically this research project focused on the way students link developmental steps, and how disruptions in this fundamental initial stage of the project occur.

Based on findings from this initial PolyU DGRF-funded research project (*Design Play - An Inquiry into Design Education Processes in Hong Kong's Multicultural Contexts*), this implementation project intends to establish a set of specifications for the definition of an appropriate interactive design education toolkit. Its aim is to enhance student learning experiences of Capstone project development processes for SD cross-cultural contexts.

Project significance and relevance to institutional goals in implementing outcome-based approaches in student learning

Project aims

Enhance SD students' ability to ascertain the relevance and limitations of their control over the creative process.

Enhance Capstone Project development learning experiences for School of Design cross-cultural contexts.

Assist SD students in contextualizing the relevance of integrating both process and outcome in design's holistic cultural practice.

Assist SD educators in controlling student's attainment of Client and Capstone Projects' complex set of subject Learning Outcomes and integrating generic skills with professional outcomes.

Project objectives

Design Play Toolkit: definition and implementation of an interactive self-directed learning design toolkit to enhance capstone project processes in School of Design cross-cultural contexts.

The Design Play Toolkit intends to the support SD's institutional goals and targets in implementing outcome-based approaches in student learning:

- Support SD's transition from teaching-centered to student-centered learning practices

- Support the development of self-directed learning practices at SD

- Improve the alignment of SD's subdegree and undergraduate subject outcomes to facilitate student articulation to higher studies

- Align student project development strategies with SD's design vision

2. Target users

(Who are the intended users of the 'deliverables' of the project – faculties / departments management or programme/subject teams or students?)

School of Design academic staff teaching capstone projects (see subjects taught in table below)

School of Design students (see subjects studied in table below)

Programme/ subject code	Programme/subject title	Credit units	Mode of study	Student intake quota per year
73016	BA (Honours) in Design Final Project			
SD400	Co-operative Workshop	6	Full time	120
SD4833	Final Project (Advertisement)	9	Full time	30
SD4533	Final Project (E&I)	9	Full time	30
SD4433	Final Project (I&P)	9	Full time	30
SD4233	Final Project (VC)	9	Full time	30
73026	Higher Diploma in Multimedia Design and Technology			
SD3002	Co-operative Workshop	6	Full time	135
SD3004	Independent Project	6	Full time	135
8C005	Associate in Design			
CC3415	Client Project	6	Full time	80
CC3428	Final Project	9	Full time	80

3. Outcomes and deliverables

(a) Major outcomes and deliverables

(What will be the major outcomes and deliverables of the project?)

	Major outcomes and deliverables with descriptions
(a)	Design Play Toolkit: Interactive Education Toolkit to Enhance Capstone Project Process Development for School of Design Cross-Cultural Contexts
(b)	Design Play Toolkit user guide
(c)	Design Play Toolkit project report
(d)	Design Play Toolkit project presentation for conferences
(e)	Design Play Toolkit conference abstracts
(f)	Pilot Study 1 Report: teacher assessment of initial Design Play Tool Kit iteration.
(g)	Pilot Study 2 Report: trial run of initial Design Play Tool Kit iteration.
(h)	Design Play CD-Rom / downloadable files

(b) Plan for developing and piloting / implementing the deliverables

Preliminary assessment for initial iteration of outcomes

Review of Design Play Research Project & Design Play Interactive Education Toolkit initial iteration

Start Date (15/05/2008)

End Date (15/06/2008)

1. Assessment of needs based on preliminary DGRF-funded Design Play research project: *An Inquiry into Education Design Processes in Hong Kong's Multicultural Contexts*

3. Establishment of a set of specifications for the definition of an appropriate interactive education design process toolkit

2. Toolkit initial iteration

Pilot Study 1 – Teacher assessment of Design Play Toolkit initial iteration

Start Date (16/06/2008)

End Date (31/08/2008)

1. Establishment of a set of criteria and questionnaires for the assessment of the toolkit's iterations by SD teachers and students

2. Collection of teacher toolkit assessment questionnaire feedback

3. Pilot Study 1 toolkit teacher assessment report

4. Integration of teacher assessment in toolkit initial iteration and user guide

Interim evaluation for interim iteration of outcomes

Pilot study 2 – Design Play Toolkit initial iteration trial runs in semester 1 "client" capstone projects

Start Date: 01/09/2008

End Date: 10/12/2008

1. Toolkit trial runs in subdegree and undergraduate "client" capstone projects

2. Student /teacher toolkit assessment: collection of questionnaire feedback

3. Pilot Study 2 toolkit trial run assessment report

Design Play Toolkit interim iteration

Start Date: 11/12/2008

End Date: 14/01/2009

1. Integration of Pilot Study 2 report findings in toolkit interim iteration

Interim evaluation for final iteration of outcomes

Pilot study 3 – Design Play Toolkit interim iteration trial runs in semester 2 "final" capstone projects

Start Date: 15/01/2009

End Date: 01/06/2009

1. Toolkit trial runs in subdegree and undergraduate "final" capstone projects

2. Student/teacher toolkit assessment: collection of questionnaire feedback

3. Pilot Study 3 toolkit trial run assessment report

Final evaluation for dissemination of outcomes

Implementation - Design Play Tool kit final iteration

Start Date: 02/06/2009

End Date: 31/08/2009

1. Review of Pilot Studies 1, 2, 3 assessment reports

2. Integration of review in toolkit final iteration and user guide

Design Play Toolkit Project Report and deliverables

Start Date: 01/09/2009

End Date: 31/01/2010

Please refer to Part II, Section 3 for a detailed itemization of deliverables

4. Dissemination and sharing plan

(How are you going to disseminate and share the outcomes and deliverables of your project?)

Implementation of an educational interactive application
Implement the Design Play Toolkit and user guide published in CD-Rom / downloadable files accessible online to students and staff through internal School website.

Research and implementation project report
Report documenting cases studies of the Design Play Toolkit application in Capstone projects.

SD Sharing teaching workshops
Organise with SD School Learning and Teaching Committee (SLTC) Design Play Toolkit sharing presentations and workshops with frontline teachers involved in Capstone Projects.

External dissemination and presentations
Present and publish research findings, Design Play Toolkit implementation processes and trial run case studies in international conferences, proceedings and publications.

5. Evaluation plan

Evaluation plan - overview

This research project will incorporate ongoing evaluation findings in the implementation of a relevant educational toolkit for successful contextualization of outcomes in student learning experiences of capstone design projects.

A continuous assessment of this project will allow the Project Team to meet development deadline milestones (see paragraph *3. (b) Plan for developing and piloting / implementing the deliverables* in the submitted proposal for a detailed chronological breakdown of the assessment process).

The following plan details both the structure of this process and the milestones it will reach for the dissemination of outcomes.

Evaluation plan - process

In order to measure this project's development progress and validity, the Project Team, in collaboration with colleagues at SD's School Teaching and Learning Committee (STLC) and EDC's WGOBE, will collate and integrate findings from weekly assessment logs filed by students using the Design Play Toolkit in the development of their capstones projects. The following methodology will be used during the project's Preliminary Assessment stage for the definition of this assessment log:

1. Identification of variables affecting the establishment of a capstone design project process

2. Qualification of attributes defining the stages of a capstone design project process

3. Establishment of the system of values measuring attributes relevant to an educational design process toolkit

4. Definition of relationships in this system of values to describe the level of measurement needed to communicate the impact of this project's outcomes for dissemination

Log entries will be compiled on a weekly basis and integrated during the toolkits trial run in annotations for review and assessment by teachers and students. Milestone assessments as indicated in the Evaluation Plan (paragraph 3. (b))

Evaluation plan - milestones

Preliminary assessment for initial iteration of outcomes

1. Integrate teacher response to student response from PolyU DGRF-funded primary Design Play research project to establish an evaluation plan for initial interactive toolkit iteration. Align plan with Outcome-Based Evaluation objectives, in particular in regards to the need in Capstone projects to integrate professional and transferable skills.

2. Pre-trial run semi-structured interviews with SD fellow teachers to assess interactive toolkit initial iteration's relevance to Capstone projects

Interim evaluation for interim iteration of outcomes

1. Integrate preliminary evaluation findings

Trial runs scheduled for Capstone projects over a year:

- Semester 1: toolkit trial run on Client Projects at subdegree and undergraduate level

- Semester 2: toolkit trial run on Final Projects at subdegree and undergraduate level

2. Feedback from stakeholders on toolkit trial runs

- Post toolkit trial run student semi-structured interviews and report

- Post toolkit trial run teacher semi-structured interviews and report

Interim evaluation for final iteration of outcomes

1. Integrate student feedback and teacher feedback for toolkit final iteration

Final evaluation for dissemination of outcomes

1. Compare trial run feedback from stakeholders with criterion-referenced assessment results of Capstone project learning outcomes to gauge effectiveness of toolkit

2. Organise internal SD sharing seminars with fellow Capstone project colleagues to finalise strategies

6. Impact

(How will the project contribute to the success of the implementation of outcome-based approaches in student learning in the PolyU/ department/ programme/ subject?)

- The implementation of such strategies would enable SD students and teachers to:
  - adapt the curriculum to individual student study pace

- take better control over student design projects

- identify key project issues and stakeholders and holistically articulate strong arguments to contribute to the success of student projects

- select appropriate tools and methods for effective student project development

- enable flexible means to adjust student project development and produce measurable outcomes

- establish criteria to allow students possess ownership of project outcome assessment

- provide a clear study path for students to better reflect on their learning experiences

- identify individual student study issues to facilitate integration of professional to generic skills accrued throughout the curriculum

- improve teachers' management of (i.e. save) tutorial time

- establish teaching strategies to ensure student capstone project quality

Relevance to other PolyU Departments: the Toolkit will enable students from other PolyU Departments (such as the Faculty of Business, Faculty of Communication and Faculty of Engineering, School of Hotel and Tourism Management, the ITC, and the IC) with the necessary methods to integrate fundamental design strategic notions for project development management and establish creative processes for socially relevant innovation.

7. Target date(s) for submission of progress and completion reports

	Planned submission date (mm/yyyy)
1. Progress report *(for projects whose duration lasts more than 1 year; to be submitted mid-way through the proposed project period)*	**Feb 2009**
2. Completion report *(to be submitted within 3 months after the project completion date)*	**Mar 2010**

PART III: BUDGET OF PROPOSAL

Project Leader

Name: REMI LECLERC   Signature:

Dept: SCHOOL OF DESIGN   Date: January 14th, 2008

PART IV: DEPARTMENTAL ENDORSEMENT

Endorsement by Chair of FLTC/ DLTC:

Comments on the proposal:

Name: _____ Signature: _____ Date: _____
            (in block letters)

_____

Endorsement by Dean/ HoD:

Comments on the proposal:

By endorsing this proposal, I agree that:

1. **The proposal suitably addresses the School/Department's needs in promoting and implementing outcome-based approaches in student learning and will be considered as part of the School's/Department's Business Plan.**

2. **The School/Department will receive a funding as calculated for item (e) in the Budget section which I will use for providing the time release recommended by the project proposers, based on the Total Workload Model, to support them to work effectively on the project.**

Name: _____ Signature: _____ Date: _____
            (in block letters)

_____

Please return this form to Miss Miranda Fung, Secretary of Working Group on Outcome-based Education,

c/o Educational Development Centre

by **31January 2008**