THE REFLECTIVE PRACTICE PERSPECTIVE TOWARDS INFORMATION SYSTEMS DEVELOPMENT

Gavin Baxter

Supervisors: Prof Thomas Connolly, Dr Mark Stansfield

HTTP://CIS.PAISLEY.AC.UK/BAXT-CI0/

SCHOOL OF COMPUTING

UNIVERSITY of PAISLEY

Research Abstract

- IT projects sometimes fail due to IS developers' lack of contextual reflection in IS projects.
- The concept of reflective practice utilised in industry may alleviate IS project failure.
- Educating systems developers to be more reflective is important.

Research Justification

Apparent lack of reflective practice within the IS Community:

- High proportion of IT project failure rate in industry.
- Lack of use of reflection by IS practitioners in industry.
- Inability to learn from past failures.
- IS graduates lacking in reflective skills for industry.

Research Objectives

- Advocate the case for reflective practice in IS industry and educational contexts.
- Devise guidelines for implementing effective reflective practice in IS community.
- Establish closer links between the education and industry.

Reasons for IS Failure

- Conflicting interests of project stakeholders.
- Lack of communication among project members.
- Failure to perceive ISD as a socio-technical process.
- IS developer's inability to learn from past mistakes.

Projects	Success	Challenged	Impaired
1994	16.2%	52.7%	31.1%
2003	34%	51%	15%

Table 1: Latest Standish Group CHAOS Report

Good news: Project success rates have improved by 50% since 1994 but still with a low success rate of 34%.

Challenged Projects	Overrun time	Implemented requirements
2000	63%	67%
2003	82%	52%

Table 2: Standish Group CHAOS Report

Bad news: Time overrun ratio has increased by 30% and 22% less required features and functions have been implemented compared with 2000 numbers.

Reflective Practice and IS

The notion of the reflective practitioner (Schon, 1983):

- Reflection-in-action: interacting with your own experiences and theories-in-use.
- Reflection-on-action: questioning the contextual factors of a given situation.
- Repertoire: build a repertoire of past experiences for future project scenarios.

Reflective Practice and Organisational Learning

- Organisational learning requires companies to learn via innovation and adaptability.
- Reflective practice can be viewed as a catalyst for instigating organisational learning.
- Reflection within IS industry accommodates: learning from mistakes, vision and knowledge sharing and experimentation (Woerkom, 2003).
- Organisational learning may allow IS organisations to learn from past project failures.

Continuous Improvement Methodologies: Kaizen and Six Sigma

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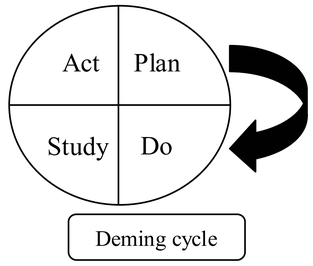
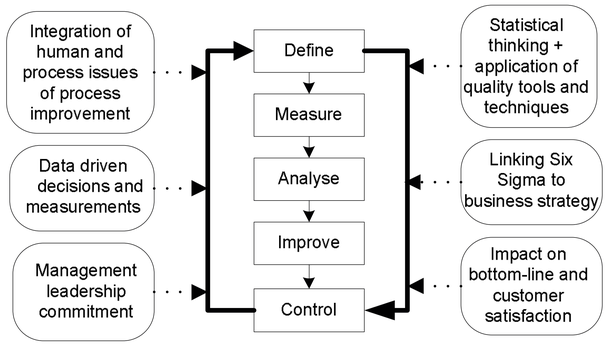
- Kaizen is a continuous business improvement methodology.
- It aims to improve business processes by "doing little things better" (Stapley, 1996).
- Kaizen uses the reflective process of W. Edward Deming's "plan, do, study, act" (PDSA Cycle).
- It involves people at all levels of an organisation.



The Plan-do-study-act cycle as illustrated by Cleary (1995)

Six Sigma

- Statistically-oriented continuous business improvement methodology.
- It aims to eradicate "waste" in business processes.
- Use of DMAIC methodology: define, measure, analyse, improve and control.
- Reflection is signified via "statistical thinking", "strategic thinking" and "process thinking" (Antony, 2006).



Six sigma DMAIC methodology as illustrated by Antony (2006)

IS and Education

- IS tertiary courses should have an organisational perspective.
- Transferable skills as well as technical ones should be taught.
- ePortfolios and reflective journals could facilitate reflective practice.
- Collaboration of education and industry for ensuring best practice for the discipline of IS.

Research and Future Work

- Collaborate with IS industry to address issues of IS project failure.
- Inform wider IS community about the benefits of reflective practice in IS project contexts.
- Facilitate better understanding between IS education and industry.