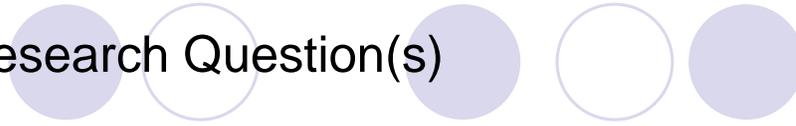
The title is centered and surrounded by five light purple circles. Two are solid and three are hollow. The circles are arranged in a loose pattern around the text.

## ***The Effectiveness of Learner Stories.***

Peter Rawsthorne

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### **Research Question(s)**

- How do learner stories assist adult learners in identifying their desired learning outcomes when designing their own learning materials for use within a Personal Learning Environment (PLE)?
- What attitudes are displayed by learners towards creating their own learner stories and identifying their personal learning objectives?

## Literature Review

- **Instructional Systems Design**
  - ADDIE / Dick & Carey (Lee & Lee, 1996; Molenda, 2003)
  - Constructivist Learning Environments (Jonasson, 2001; Wilson, 2000)
- **Agile User Stories** (Ambler, 2006; Cohn, 2004)
- **Agile Test Cases** (Chun, 2004; Cohn, 2004)
- **Agile Instruction** (Ardis, 2004; Chun, 2004; Douglas, 2006)
- **Means-Ends** (Marshall, n.d.)
- **Competence based education** (Everwijn, 1993)

## Definition of Terms I

- **Learner Story**
  - A learner story describes skills or knowledge that will be required for a person to be successful within a task or subject domain. Learner stories are composed of three aspects;
    - A written description of the story used for reference and planning.
    - Conversations with subject matter experts about the story that serve to flesh out details and identify learning outcomes.
    - Test scenarios that identify and document the details used to determine when the learner has gained the required skills and knowledge.

Adapted from (Cohn, 2004); "What is a user story?" page 7.

## Definition of Terms II

- Outcome Story

- An outcome story describes the outcomes or acceptance tests the learner needs to be considered competent in applying their new found knowledge. Outcome stories are composed of three aspects;
  - A companion learner story.
  - A written description of how the skills or knowledge are applied in practice. (Everwijn, 1993)
  - Assessment methods to determine competency.

## Participants

- The participants will consist of adults with knowledge of pedagogy and approaches to self-directed and life-long learning. The volunteer participants will be solicited from a number of social networking sites focused upon pedagogical issues in education. <http://www.elgg.net> is one such site.

## Materials

- Desktop Computer(s)
- Internet access
- Internet chat (MSN or equivalent)
- Wordpress (2.0 or greater)
  - Privacy feature is required
- Google Reader
  - To aggregate other participants blogs
- Index cards and writing instrument

## Research Design

- A spiral action research method will be utilized. The first few steps (or iterations) of the project will be as follows; (keep in mind that later steps may change as the research influences each subsequent step).
- **Step 1.** Idea forming phase – during this phase a description of the learner story and the research project will be introduced upon the <http://www.elgg.net>. Participants will be asked to express interest in participation.
- **Step 2.** Participants will complete a pre-test and interview to gather data regarding the participants comprehension of learning outcomes, self assessment and competency analysis.



## Research Design cont.

- **Step 3.** Participants will write a set of learner stories and their respective outcome stories with the assistance of self-identified mentors and subject matter experts. This set of stories will identify their personal learning objectives.
- **Step 4.** Participants will engage in self-directed learning activities derived from the learner stories.
- **Step 5.** Participants will review their learner and outcome stories and further refine their personal learning objectives to bring learning closer to their outcome stories.
- **Step 6.** Process will iterate back to step 3. until Means-Ends (Marshall, n.d.) come to closure.



## Research Design cont.

- **Step 7.** Participants will complete a post-test to gather data regarding the participants' comprehension of learning outcomes, self-assessment, competency analysis, and overall satisfaction with creating their own learner stories.

## Instrumentation

- Pre-test
- Interview questions
- Written work (through all iterations)
  - Learner stories, Outcome stories and Competency Analysis
  - Blogs and Wiki
  - Observations
- Post-test

## Procedure

- Procedure will follow the means-ends analysis method;
  - 1. Until the goal is reached or no more procedures are available:
    - Describe the current state (learner story), the goal state (outcome story) and the differences between the two (comprehension analysis).
    - Use the difference to describe a procedure that will hopefully get nearer to goal state (outcome story).
    - Use the procedure and update current state.
  - 2. If goal is reached then success otherwise fail.

## Expected results

- Participants will show an ability to write learner stories describing their learner needs.
- Participants will show an ability to seek out 'experts' to assist in writing outcome stories.
- Participants will have ability to competency analysis derived from learner and outcome stories.
- Participants will develop working relationships with 'experts' in developing methods to create self-directed learning environments.
- Participants will show ability to close gap between learner story and outcome story.

## Data collection method

- Data gathered from pre and post tests will be quantitative
- Data gathered from Interviews, written work and observations will be qualitative and analyzed with appropriate use of discourse and content analysis. (Mann, 2006)

## Data Collection

- Observations from pre and post test will be provided. The intent of these two tests is to identify current and developed knowledge.
- Written data will be analyzed through discourse and content analysis. Considerable effort will be performed as this is where the data will be found to support the research question(s).

## Conclusions of the study

- The issue being addressed by this study is can Agile methods be utilized by learners to develop their own materials and learning objectives for use within a Personal Learning Environment (PLE).
- The conclusion will provide further insight into this thesis. If a positive result is found further investigation into the best methods in creating learner stories will have to be further explored.

## Contributing factors

- Participants comfort with online learning and Web 2.0 based technologies (blogs, wikis, etc.)
- Willingness of participants to innovate
- The participants ability to engage an 'expert'
- The succinctness of learner stories and outcome stories
- Ability to perform competency analysis

## Implications of the study

- A renewal of means-ends analysis methods within the concept of agile methods.
- Further understanding of Agile approaches toward learning.
- A proven approach for individuals to identify their learning needs within PLEs.

## Limitations of the study

- Number of participants
- Fall off in participation
- Inappropriate fit of Agile methods in learner-centered design

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