

Improving Personal Mastery Through a Nurturing Program for First Year Students at a Private University in Chiang Mai, Thailand

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ABSTRACT

Student dropout rates during the first year of university are a problem globally, and particularly in Thailand, where some research has highlighted dropout rates of up to 35%. This paper aims to tackle university dropout rates in the first year of university at a private university in Thailand. The paper argues that general education courses provide an ideal platform from which to launch a nurturing program aimed at curtailing student dropout rates. Two theories of personal mastery and mastery learning are investigated as potential approaches to designing a nurturing program that can be used to assist students in their transition from high school to university, and in turn reduce the chance of dropping out of university. Results show how the nurturing program was designed based on an investigation of classroom problems and discussions with experts. Example activities and lesson plans from the resulting mastery leaning nurturing program are shown, before introducing future work which will go a step further to analyze the effectiveness of this program. It is envisioned that this work could be built upon to improve students' personal mastery and lifelong learning, which could eventually have effects on university dropout rates and wider society.

Keywords: Personal mastery, Mastery learning, General education, Dialogue, Dropout rate

INTRODUCTION

Background

Globally, the dropout rate of undergraduate students is particularly significant between the first and second year of university; for example, a dropout rate of 33% in the United Kingdom and a similarly high dropout rate in the United States (Kingston, 2008; Barefoot, 2004). This is a particular problem in Thailand, where research has shown dropout rates of up to 35%. Most literature shows that high dropout rates arise from individual and personal factors, not from the university environment itself (Need & Jong, 2001; Lowe & Cook, 2003). The external environment provided by the university can, however, support students who cannot easily adapt themselves to new surroundings introduced through university study. Students face high risks and problem behavior as they are challenged by unfamiliar social, academic and vocational aspects in their lives. Frequently, they do not have the essential skills and abilities to reach social or personal goals. Additionally, students often cannot reduce the gap between their needs and current situation; tension emerges from study and examinations. The ultimate problem associated with the disconnect between students' current situation and their eventual goal is that some students, with low motivation or low personal vision, withdraw or dropout in the first year. Dropout rates are characterized by students who do not attend class regularly, do not complete homework and do not

realize or comprehend the effects on themselves and, in turn, on society (Bridgeland et al., 2006).

A potential solution to these dropout rates is to create adaptable students who have a well-developed sense of personal mastery and empowerment. This could potentially be achieved through effective general education courses. Programs in general education represent the most suitable mechanism to improve dropout rates and the reasons why are discussed further in section 1.2. One way to address dropout rates within the design of general education courses is through personal mastery, which is defined by Senge (1990) as the practice of articulating a coherent image of personal vision, complete with the results an individual most wants to create in their life, alongside a realistic assessment of the individuals' current reality. Senge (1990) goes on to state that this can produce innate tension that, when cultivated, can expand an individuals' capacity to make more effective choices and to achieve more of their desired results.

The aim of this paper is to develop a nurturing program to reduce student dropout rates by improving personal mastery and student adaptability through a program within the general education course. The research focuses on first-year students at a private university in Chiang Mai Province, Thailand. Before considering the case study and methodology, it is necessary to outline what is meant by general education and its importance in undergraduate education,

especially in Thailand.

General education

General education originated in American universities with the objectives of providing:

(1) Knowledge and philosophies to new students through problems to study.

(2) An ability to perceive the difficulties of society, as well as the knowledge of science influencing human life.

(3) An understanding of how to be effective human beings.

The curriculum of general education is varied, and depends on the mode of study and the particular definition being considered. One clear definition from Harvard University (1945) analyzed and developed a report about general education. "General education in a free society" is defined as education in which learners should have responsibility and be effective human beings (Sinlarat, 2007; Wehlburg, 2010). General education aims to develop learners as ideal citizens, with wisdom and morality, in addition to their special education and training within specific fields. Today, employers demand that their employees use a broad set of skills and have higher levels of learning and knowledge than in the past in order to meet the increasingly complex demands they will face in today's society and workplace (Hart Research Associates, 2010). General Education can help to achieve this and is considered the ideal subject from which to develop students' personal

mastery through a nurturing program. Thailand's general education courses were influenced by higher education in America. The courses built on two concepts related to the development of ideal humans with knowledge, thought, skills, appropriate morality and responsibility in work and society (Sinlarat, 2007). General education in Thailand began in 1957 at Chulalongkorn University. The ultimate objective of general education courses is, firstly, to create effective humans with responsibility and morality and, secondly, with the appropriate vocational skills to gain employment (Dronov & Knodakov, 2010). When these two parts blend, they promote each other without conflict. In Thailand, the general education curriculum is a single course, integrating content from the humanities, social sciences, mathematics and sciences. In addition, the Thai Ministry of Education (Ministry of Education, 2005, p. 25) defined the goal of general education as, "providing the student with deep understanding, broad vision, an understanding of themselves, others and society, with rational thinking, meaningful communication, morality and an understanding of Thai and global culture". Thailand should also be suitably prepared for the free trade associated with the ASEAN economic community in 2015. General education is important in the preparation of students (Payap University, 2006). As the aims of general education are in line with the philosophies of personal mastery and reducing university dropout rates, the general education

course provides a useful and suitable platform from which to launch a nurturing program aimed at reducing student dropout rates and increasing personal mastery. This paper utilizes a case study at Payap University, located in northern Thailand, to develop a nurturing program for first-year students within the general education program.

The case study: Payap University

Payap University, established in 1974, is a private institution founded by the Church of Christ in Thailand. The university strives to adhere to its motto "Truth and Service" by seeking academic and moral excellence to create understanding through truth and an attitude of service to all. The philosophy of both Payap University and General Education are in alignment in terms of preparing students to develop their life skills and attempting to balance a well-rounded education with knowledge and skills in a specific field. Payap University aims to develop undergraduates with "a passion to grow, academic leadership, ethical hearts, and students who are society's servants" (Payap University, 2006, p. 17). To achieve this goal, Payap University applies the general education course as a tool in developing first-year students. Nurturing students in the first-year general education course, therefore, represents an ideal opportunity to assess and develop students' personal mastery.

METHODOLOGY

The methodological approach utilizes two theories, personal mastery (as noted previously) and mastery learning. Despite sounding similar, these are fundamentally different theories. Personal mastery was a concept introduced by Senge (1990); researchers tend to apply personal mastery to internal aspects of student development, in order to promote adaptation as individuals (personal vision, holding creative tension, commitment to the truth and using the subconscious). In contrast, mastery learning is a theory applied to provide high quality group-based instruction and instructional strategies within the curriculum that permits all learners to be successful (Gentile & Lalley, 2003; Guskey, 2007, 2010).

This research will utilize mastery learning (ML) to develop personal mastery and will do so within a nurturing program in general education. The aim of the Mastery Learning Based Nurturing Program (MLN) presented in this paper will be to place the main personal mastery concept (personal vision, current reality, and creative tension) into an instructional plan via mastery learning in order to make students more clearly aware of an array of goals and results (Senge, et al., 2000; Butler, 2006; Darnon, et al., 2007). To improve personal mastery and reduce dropout rates through a nurturing program, this research implemented a methodology consisting of four steps. These are illustrated in Figure 1.

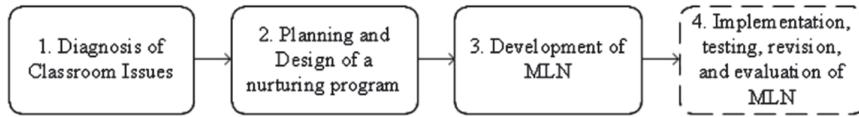


Figure 1. Research methodology showing the four steps employed in the research. Steps 1-3 are presented in this paper, while step 4 is ongoing/future work.

Figure 1 illustrates that the initial design of a nurturing program is a classroom diagnosis (Guskey, 2010). In this research, such a diagnosis included assessing current student problems and lifestyles. The second stage of the methodology involved planning and conducting lessons that follow a systematic plan of the mastery learning format. The third step involved developing and checking the resulting MLN with experts. The fourth step in this research is future work, which will aim to implement, test, revise and evaluate the nurturing program.

Diagnosis of classroom issues

In this initial step, students were surveyed to collect data regarding aspects of demographics, life skills and learning style (including their learning goals). The sample consisted of the whole population of 80 students who

were registered for the GE101 course at Payap University (General Education 101: The Path to Wisdom). The interviews took place in small groups of approximately ten students. When recording answers, Likert scales were used to gauge student attitude and feeling towards specific aspects of learning style and skill.

Figure 2 shows some example questions from the interviews. Future adaptations to this research will also involve interviewing parents about their expectations and attitude towards financial support of their children. Financial support is considered particularly important, given Payap University is privately funded. All data from the interviews were collected and analyzed using simple descriptive statistics (e.g., cumulative percentage, mean) and then analyzed to draw out patterns relating to life skills, student learning styles and learning goals.

- ...
- ...
- 3. How do you manage your lectures notebook?
- 4. How do you manage your study time?
- 5. How do you manage your reading time?
- 6. How do you manage the obstacles/distractions (going out with friend, etc.)?
- ...
- ...

Figure 2. Sample interview questions in the diagnosis stage.

Planning and design of a MLN

The second step is the planning and design of a nurturing program. The data from stage one were applied in designing and writing lesson plans, emphasizing learning-based activities for motivation and engagement. Motivation was developed through enrichment activities based on mastery learning theory (Gentile & Lalley, 2003). Of particular importance, the students themselves identified their learning goals, self-pacing, monitoring and feedback, including evaluation (Leonard, 2002).

The learning process based on the mastery learning principle is an appropriate tool to combine with the core teaching concept of general education, which explains why teaching general education can help students to explore their learning goals independently, and from various resources, using their preferred learning styles in order to most effectively achieve goals. The general education philosophy is often characterized by the phrase, “the instructor is the Good Shepherd” – or although one sheep might miss its group, the good shepherd must catch it safely. This is consistent with the main principle of mastery learning theory; applying mastery learning offers remedial instruction to students who wish to develop their capability, acquire new skills or identify their mistakes (Gentile & Lalley, 2003; Buacharoen, 2001).

Mastery learning is necessary when students are faced with major differences in transition from high school to college, along with a shift

from a teacher-directed environment to a more independent learning style (Dembo, 2003). In college, students are expected to manage their own learning and become self-motivated; therefore, instructors should focus on developing first-year students to achieve personal mastery, which they can apply to the remainder of their university life and potentially beyond. Based on results from stage one of the methodology and the theory of mastery learning, instructors wrote 15 lesson plans that offered enrichment activities aimed at helping students learn more effectively and correct their own mistakes in the classroom, using dialogue in the form of an e-learning system.

Development of MLN

The third step of this research involved integration of stage one and two of the methodology to develop a MLN. The MLN was produced by integrating the lesson plans from stage two as well as using GE101 content, dialogue techniques, forums/social network communication tools (e.g. Facebook) and enrichment activities. The researcher provided lesson plans along with a questionnaire to professionals who had general education as part of their core responsibility. Five professionals then checked and examined this program (one from the Faculty of Education and two from the College of Arts Media and Technology, Chiang Mai University; two from Payap University). After the researcher made corrections based on professional feedback, the

research created an e-learning system for GE101, creating a forum for dialogue with students throughout the semester, and preparing the learning tools and associated media.

Implementation, testing, revision and evaluation of the MLN

The fourth step will include implementation, testing, revision and evaluation of the MLN, which is the basis of ongoing and future work. However, the results of the diagnosis, planning and development of the MLN are shown in the next section.

RESULTS AND DISCUSSION

Diagnosis of classroom issues

Table 1 shows the key student problems identified via stage one of the methodology (classroom diagnosis).

Planning and designing a nurturing program

Data analysis from step 3.1 found that the primary learning goals of students were related to their future careers and completing their education quickly. The score level pointed out they had the highest scores, so students required more support for life skills, method development and working process development in order to achieve their goals. After identifying goals, enrichment activities were selected and are shown in Table 2.

After analyzing student behavior and support activities, students were grouped into activities. The activity plan for the first-year students in the "GE101: The Path to Wisdom" class was split into five groups, with 20 total activities.

After selection and grouping of activities, they were elaborated and linked to the literature based on the objectives and procedures for each activity.

Table 1. Results from step 2.1: The problems identified during the diagnosis stage.

Key student problems	Components of mastery learning with potential to reduce these problems
- Student goals: students want to complete the degree in a short time, however, as time passes, their attention decreases.	- Specify learner goals in terms of what is to be learned and how the learning activities will be evaluated.
- Student behavior: students skip classes, cannot manage their time, are often lazy, play games and spend less time reading than they should.	- Permit learner self-pacing. - Monitor student progress and provide immediate feedback. - Evaluate to ensure that the final goal of the learning activity is achieved by each student.
- Students: students need support from society (anger coping skills, problem-solving skills and refusal and negotiation skills).	- Enrichment activities of mastery learning based on life skills concepts.

Table 2. Analysis of students' problems matched with enrichment activities.

Concept	Instrument	Who are the theorists?	What do Payap students lack or where do they need support?	Backup activities
Mastery learning 1.goal 2.spacing 3.monitor 4.evaluate	2010-2011, data gathering from question- naire	Caroll (1963) Bloom (1969) Hotchkis (1986) Leonard (2002)	-Plan time and follow time -Suitable study tools -Different aptitudes achieving the same goals -Prior experiences of the students	-Wheels of learning -Time capsule -Setting goals -My Learning Diary -KWL Topic Grid

Table 3. The enrichment activities of lesson plans in the MLN.

Activity Group	Name of activity
Life skills (3 activities)	- Anger Measurement - Problem-solving & Refuse - Negotiation
Personal mastery (3 activities)	- Wheels of Learning - Mapping the students' current reality - Demystifying the Learner
Self-esteem (2 activities)	- "See You See Us" - How to be a "WINNER:
Motivation (6 activities)	- The Highest Dream - The Bright Future - You Speak I Speak - Life Management - Map to the Success - A Covenant of Beliefs About Learning
Mastery learning (6 activities)	- River of Life - Setting Goals - Things That Help Me Learn - My Learning Diary - KWL Topic Grid - Time Capsule

Table 4. Examples of activity details and links to the literature/theory.

Activity name	Concept and Theory	Objectives
Mapping the students' current reality	- Senge (2000).	1. To consider the whole life situation of students
Setting goals	- Read (2007)	1.To identify and set yourself short-term personal learning goals
Things That Help Me Learn	- Read (2007)	1. To reflect on learning styles and strategies related to specific areas of learning. 2.To develop awareness of your own learning preferences 3.To begin to develop personalized learning styles and strategies

Table 5. Example assignments showing summary of lesson plans.

Date/Month/Year	GE101 Content	Activities	Tools and procedures
12/7/2011	Analytical thinking	-Time Capsule #1	Short story "Rice of one hand" Worksheet "Time Capsule" 1. Lecture 90 minutes 2. Time Capsule 45 minutes
14/7/2011	Mind map	- My Learning Diary	1. Lecture 90 minutes 2. My Learning Diary 30 minutes

In this step, a mapping of students' current reality must be completed before setting the learning goals within the "Setting Goals" activity. This is because students must know the current situation of their learning and be able to compare their goals. Following this, the activity "Things That Help Me Learn" could be conducted in class in order to encourage students to learn with success. Reinforcement activities and activities focusing on self-awareness were designed every 2-3 weeks to regularly create positive reinforcement in trying to achieve their goals.

The next step was to design the 15 resulting lesson plans for each week of the MLN. Example assignments at this stage are shown in Table 5.

Development of MLN

Experts made several suggestions at this stage; the most notable were writing weekly learning objectives, the main daily concept, learning activities and an evaluation of all student assignments with rubric scoring by adjusting the description of the rubric-scoring assessment criterion in numerical format. As an example, students wrote their five learning goals

on "The Highest Dream" worksheet and students posted eight items to the "Things That Help Me Learn" forum within three days.

Implementation, testing, revision and evaluation of MLN

As explained in section two, implementation, testing and evaluation are future work. The MLN is currently being implemented. Preliminary results from testing and evaluation are expected within four months.

CONCLUSION

Payap University is a private institution founded by the Church of Christ in Thailand (a religious education institution) and the philosophy of the university is concerned with students' spiritual wellbeing. Reducing the dropout rate is in line with this overall philosophy. Preliminary work in this paper has shown the potential for developing a MLN to meet the aims of this philosophy. Ultimately, the MLN should help Payap University develop learners as students' with career goals, ideal citizens, and an effective educational management system through general education.

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