The “I” in Independent Learning: The Rise of Self-Managing Learners

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Abstract

Fostering a culture of independent learning has become an educational buzzword, especially with changing paradigms of learning and the skills desired by the global knowledge economy. While many are eager to jump on the bandwagon of independent learning, there is insufficient consensus or defining parameters to illuminate what independent learning is, what the desired goals are and how it impacts stakeholders. With the independent learning rhetoric always in a state of flux, it is important to begin formulating what it means in theory and its place in the experiences of students and educators. This research thus examines the ongoing efforts to cultivate a culture of independent learning in a Singapore college. The research reviews how independent learning is carried out, its implications and difficulties from the perspectives of educators and students and its effectiveness in view of practical and policy demands/struggles. It is found that while everyone appreciates the importance of independent learning, it is practically, a challenging enterprise given the nature of students, curriculum demands and philosophies of educators.

Keywords: Learning and teaching
INTRODUCTION

In a knowledge-driven society where life-phased and just-in-case learning are no longer adequate, students must learn to learn on their own so that they can remain viable with life-long and just-in-time learning. Paradoxically then, good teaching is that which ultimately makes the teacher redundant; the good teacher enables the learner to become independent. This can be done through various—possibly all—teaching activities, provided the goals impelling the ‘thinking schools, learning nation’ vision is kept clearly in mind and informs the philosophy and envisioned outcomes of education. (Pan, 2007).

This research examines the ongoing efforts to cultivate a culture of independent learning in a Singapore college. The research reviews how independent learning is carried out, its implications and difficulties from the perspectives of educators and students and its effectiveness in view of practical and policy demands and/or struggles. It is found that while everyone appreciates the importance of independent learning, it is practically, a challenging enterprise given the nature of students, curriculum demands and philosophies of educators.

INDEPENDENT LEARNING IN EDUCATION

The need for independent Learning

With greater restructuring in education, many questions are raised about the way learning is carried out. A critical question that is often asked is “are students learning”. This simple, yet quintessential question has led policy makers and educators locally and globally to rethink existing pedagogies and learning frameworks to ensure that these have meaning and relevance to students. In the context of Singapore, issues to do with empowering learning and ensuring quality learning outcomes have been continually raised since the implementation of the Teach Less, Learn More policy (MOE, 2004). As a result, many new aspects of learning became more important, one of which is the rising precedence of independent learning (IL) where learners take on more active and participative roles in their learning experiences. With the push towards more student-centred learning in recent years and development of authentic strategies within learning (Newmann & Associates, 1996) and to develop a culture of life-long learning and learning for the sake of learning itself (Edwards, 2001), more attention has been placed on what learners are capable of achieving. Learners are thus given opportunities and experiences to exercise power to (Sullivan, 2002) become capable, self-reliant, self-motivated and life-long learners (Saskatchewan, 2007).

The need for IL is determined by three broad areas as outlined in Figure 1.

<table>
<thead>
<tr>
<th>Needs of Society</th>
<th>Needs of Individual</th>
<th>Mandates of Curriculum</th>
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<tbody>
<tr>
<td>Democracy – decision making participation</td>
<td>Take responsibility for own learning</td>
<td>Prepare students for life beyond school</td>
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<tr>
<td>Society change – lifelong learning</td>
<td>Initiate and participate in own learning</td>
<td>Reduce student dependence on schools and teachers for learning</td>
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<tr>
<td>Citizenship responsibility</td>
<td>Developmental process to adult independence</td>
<td>Increase student capabilities to set and meet own learning goals</td>
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<td></td>
<td>Improved self concept</td>
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<td></td>
<td>Freedom and responsibility</td>
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<td></td>
<td>Motivation and growth</td>
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</table>

Figure 1: Determinants of Independent Learning

Source: Saskatchewan, R.(2007) Understanding the common essential learnings

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It is evident that IL is highly important to ensure that learners become effective individuals who are able to direct their own growth and development beyond the setting of formal curriculum. Furthermore, as higher order skills of creative and critical thinking are emphasized, IL becomes more important since it forms the basis for the developments of these skills.

It has further been argued that that the “future is one that is likely to be fluid, borderless and constantly changing. It will demand among other attributes, a positive attitude towards learning and the capacity to work independently” (CPDD, 2004). This means that greater space is thus needed to develop these skills and invest time and effort in sustaining such a culture.

Defining Independent Learning

Goals of Independent Learning

It should first be noted that independent learning is both a goal and a process – it is a mode of learning and a characteristic of learners, albeit found in varying levels (Candy, 1991). Independent learning aims to develop competent, self-motivated, confident and adaptable thinkers who are deeply involved and interested in what they are doing and are keen to take ownership of their learning. Building a culture of independence enables learners to seek relevance or purpose from the curriculum and gradually find a voice with which they could contribute not only to the classroom environment but also in the community. Essentially, independent learning is concerned with preparing one for life.

Learner-centred processes in independent learning have the intent of allowing greater autonomy for learners to make decisions and take risks. With the ability to make choices about what they wish to explore and how to go about completing a task, learners have the freedom to use their preferred strategies and seek information from a range of sources. Independent learning allows learners to direct their own learning and make mistakes – this will necessarily result in varying levels of success and competence but it also enables educators to address different learning needs whilst giving space for learners to challenge themselves.

Greater freedom given to learners allows them to think through ideas, enabling deep learning (Knowles, 1975) and in the process builds enthusiasm and a desire to learn and solve problems. Independent learning also allows learners to be realistic about what they know and what they do not and yet understand when they encounter roadblocks. This encourages flexibility and adaptability which are the demands of our dynamic world. It is hoped that independent learning would reduce the culture of dependency where learners expect their teachers to direct their learning and provide all the resources for them to do well.

One goal of independent learning, bearing in mind social and emotional considerations, is to develop confident learners. From a young age, when a teacher assigns tasks that allow independence, the teacher acknowledges children’s potential for responsibility and recognises that individuals will demonstrate different extents of independence (Williams, 2003) and in this way, ‘self-image and self-esteem’ will develop (Merry, 1998, cited in Williams, 2003; Knowles, 1975). The classroom environment is ideal for building confidence, enabling learners to feel a sense of achievement and acquire a positive attitude to learning as educators have the tools and resources to plan tasks and shape the curriculum outcomes - conditions that not all homes are able to offer.

When educators aim to develop independent learners, there is another motivation that should drive them – the desire to shape students who are able to think and find a purpose for their learning. Alexander (1995, cited in Williams, 2003) clarifies that ‘children are being educated so
that they will contribute to the economy, democracy and social justice of society’ therefore, encouraging independence motivates students to air their views, to contribute positively to the classroom and to extend that ability outside of the classroom, for the benefit of others.

**What It Is and Isn’t**

In discussing what constitutes or defines independent learning, there are two extreme positions – the isolationist view and the interactionist view. The position we have adopted strikes a balance in that it meets both views halfway. The isolationist position believes that the theory and practice of individual learning value ‘the intrinsic and fundamental worth of every individual’ (Moore, 1983: 153). It necessarily follows that the individual is free to exercise choice, and to develop on his own terms without any intervention, control, regulatory measures and direction from others in positions of power. Literature on independent learning for adult learners and organizations differentiates between types of learning – whether it is self-directed or other-directed by the employers, and independent learning is understood to be ‘learning that takes place apart from other people’ and where ‘it is just you and your learning materials’ (Tobin, 2000). With the development of new media, independent learning is made more convenient for the individual learner who would not need to wait for a workshop or seminar. However, independent learning in the isolationist sense faces criticism. In the case of young learners, Williams (2003) argues that if a child is isolated in his discovery without adult stimulation, he will ‘fail to move beyond Vygotsky’s Zone of Actual Development’. Misconceptions will be reinforced and the spirit of inquiry will be repressed and dissipate with time.

In defining independent learning for 17 to 18-year-old junior college students that are the subjects of our study, their age, cognitive abilities, the negotiation of power relations, curricular goals, demands of the subject and other desired outcomes have shaped our understanding of what independent learning for this group should entail. The view of independent learning for this group, as gleaned from surveys with teachers, sits midway on the independence continuum. The definition of independent learning as ‘a process, a method and a philosophy of education whereby a learner acquires knowledge by his or her own efforts and develops the ability for enquiry and critical evaluation’ (Candy, 1991) is a useful starting point.

Independent learning does not refer to a situation where learners are left without adult intervention but instead, opportunities and tasks are provided for students to explore and there will be junctures to get guidance and feedback from peers or the teacher. Therefore, allowing the learner to communicate the breadth and depth of his learning or his fears and including interactive and social constructivist elements make up independent learning here. The focus of independent learning is not so much on whether a learner is working alone or in isolation for he will have to do that whenever needed, but on whether he is equipping himself with the skills to be less dependent on the teacher and be more resourceful through his own efforts and formulating his explanations based on his own research or ideas. In addition, given that our definition of independent learning takes into consideration the facilitation role played by the teacher, the challenges inevitably lie in the ability of the teacher to ‘provide the correct amount of guidance without providing too much direction’ (Candy, 1991) so as to uphold the intent of granting autonomy to the learner in the first place.

The Teach Less, Learn More (TLLM) and (SAIL) Strategies for Active and Independent Learning initiatives are two relevant approaches found in the Singapore education system. While the former encourages more learner-centred pedagogies and less reliance on teacher-driven methods, the latter is concerned with modifying instruction and assessment modes to cultivate independent learners out of primary and secondary school students. Such approaches echo the need for educators to re-think how they assign tasks, instruct and measure the capabilities of their students. Teachers should not be quick to dismiss independent learning as ‘impossible’ or
‘impractical’ because although ‘teachers have always adjusted their teaching to the backgrounds, abilities and interests of their students’ (Bruner, 1996: 47), they may unwittingly assume that learners have short attention spans, limited capabilities and are unable to think for themselves. By rejecting independent learning before finding out what it entails, educators deprive students of the continuity of independent learning opportunities that benefit learners throughout life.

Independent learning does value individual efforts and different learning styles (Kolb, 1984; Honey and Mumford, 1992), and by extension, the isolationist view to some extent. Acquired knowledge is most useful to a learner when it is discovered through the learner’s own cognitive efforts (Bruner, 1996) and the sense of achievement and positive self-image accompanying individual discoveries make independent learning fundamentally worthwhile. However, in a climate where the education system strives to achieve extensive and intensive curricular outcomes within a pre-determined period, it is imperative that the objectives are still clarified by the teacher from the outset, facilitation is still done by the teacher, tasks are set with deadlines, there are junctures for checks, and guidelines are laid out in the task notes. Independent learning is therefore not as ‘free’ or ‘unguided’ as its name suggests but there are instead tasks and activities that still respect or address the individual nature of learning. Opportunities for sharing and for feedback to be given are built into the pedagogy, enabling the interactionist element. What is noteworthy too is that independent learning empowers students to be producers of knowledge and active contributors, true to Foucault’s words that ‘power produces’ (1977). When learners are granted opportunities to challenge themselves and direct their own learning, they are empowered to make leaps in their intellectual and affective development. Independent learning is thus a learner-centred approach where the high level of student choice and active learning (as opposed to passive learning) empowers the learner.

The table below summarises what independent learning is and what it is not.

<table>
<thead>
<tr>
<th>Independent learning is.</th>
<th>Independent learning is NOT.</th>
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<tbody>
<tr>
<td>• about designing a variety of learner-centred activities or tasks</td>
<td>• leaving students without any guidance or supervision</td>
</tr>
<tr>
<td>• empowering students to use their own strategies and resources</td>
<td>• about having less lesson preparation to do</td>
</tr>
<tr>
<td>• about clarifying learning objectives, task requirements and expectations and checking at different junctures</td>
<td>• about the teacher having more time for himself or herself</td>
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<tr>
<td>• believing that students are capable and resourceful</td>
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<tr>
<td>• about motivating and developing students to be more confident</td>
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**Independent Learning Strategies**

The question of ‘how’ to design independent learning activities is certainly important as the design of a learning task largely determines its effectiveness. Factors such as the age of the students, discipline, the expected cognitive abilities, expectations of the competencies of the learners, the desired outcomes of the curriculum, an institution’s strategic outcomes and the skills demanded of individuals in the workforce influence the activities that teachers plan. Some of these concerns are reflected below:
‘Placing learners at the heart of the learning process, assessing and meeting their needs, is taken to be a progressive step in which learner-centred approaches mean that persons are able to learn what is relevant for them in ways that are appropriate. Waste in human and educational resources is reduced as it is suggested learners no longer have to learn what they already know or can do, nor what they are uninterested in.’

(Edwards 2001: 37)

Crafting an interesting task engages the students before they gradually understand the value or find relevance in the assignment. Interest and motivation to undertake a task may come from the topic assigned, the authenticity and real-world relevance of the task or even the mode of assessment or sharing that the teacher suggests. Clear guidelines and a reasonable deadline need to be given to overcome problems of clarity and time constraints. For the General Paper, the strategies that teachers have adopted include research assignments, topical presentations, online discussion forums, reading and review of articles and books, and e-learning through the school’s Internet portal. Independent learning activities tap on some basic skills that learners must have and also builds on these skills – where the General Paper is concerned, these include research skills, information-gathering, critical reading, critical thinking and writing skills. These tasks enable them to apply such skills.

Research assignments and presentations

Students are typically given a task sheet bearing topics, essay questions or an authentic problem that requires some research. They may be assigned a partner or a group to work with. A deadline is set. The authentic or investigative nature of the task motivates them to undertake research. The spirit of competition and sense of responsibility from having to share the research with their classmates also drive the independent learning. The mode of assessment could be a slide presentation to the class or an essay outline which is presented before being submitted to the teacher. Time is usually given for questions to be posed to the student presenters. The teacher may conclude the presentation that has been led by the student and will provide further feedback to the student presenters.

Discussion forums

The teacher sets up an online discussion forum for the class. Typically, questions on a contentious issue with no clear-cut solutions are posed and guidelines to govern online etiquette are established. Students post their responses to the questions, they often do some research before posting and add their own experiences or prior knowledge. There is motivation to do some independent learning as they ‘own’ their posts. Students read and respond to the posts by other students, creating a web of ideas and arguments on a particular topic. There is no one correct answer but instead sharing of ideas and critique is appreciated. The teacher responds to posts - critiquing, questioning or drawing attention to insightful posts.

Discussion forums have also been used to monitor the reading of books and articles. Students use the forum to share their reviews of articles and books and classmates or the teacher then responds to these posts.

Article or book review

Reading is an important skill for the teaching and learning of General Paper. Teachers may recommend some articles or books but students are free to find their own resources. They are expected to read in their own time and share their reviews with their peers online through a discussion forum or through submission of the review for the teacher’s feedback. Students are expected to exercise critical thinking in their reviews. Reading is done in the student’s free time
but the culture of sharing motivates students to continue reading and catch up with what their peers are reading. A shorter time frame is given for article reviews compared to book reviews.

E-learning

As resources on current affairs are widely available, e-learning allows for multi-modal learning where visuals, websites, video clips and audio resources can be integrated into a module for a particular topic. Such e-learning modules prepared by teachers come with quizzes to test both content knowledge and comprehension skills. Students are encouraged to do e-learning either on stipulated e-learning days or when the teacher wishes to discuss certain topics in class but expects the students to have prior knowledge.

The independent learning strategies outlined above enable students to learn on their own and to rely on their own cognitive capabilities and resourcefulness. At the pre-university stage, such skills prepare them for the greater independence that characterizes university life. Independent learning activities thus encourage less reliance on the teacher for answers but the follow-up or checking by teachers is crucial due to the practical requirements of the curriculum that tests the students on a set of skills at the end of a two-year course.

Independent learning & General Paper as a subject

Nature of GP

How compatible is independent learning with the General Paper? The nature of the subject does lend itself to independent learning approaches but first, an overview of the demands of the General Paper (GP) would be useful here.

The General Paper syllabus underscores ‘maturity of thought, independent thinking and the proficient use of language’ (Singapore Examination and Assessment Board, 2007). Students are expected to communicate an understanding of the world they live in and its concerns in a mature manner, through clear use of English. Candidates sit for an essay and a comprehension examination. The two papers, Paper 1 and Paper 2 test, in this order - (1) their ability to present their arguments on a chosen question in an essay of 500 to 800 words, and (2) their ability to comprehend a text, infer relevant information, summarise information and evaluate information. Each of the two papers has a duration of 1 hr and 30 minutes. A student is expected to have general knowledge of issues drawn from various disciplines such as history, politics, science, culture and the arts, mass media and also issues of local or national concern (Singapore Examination and Assessment Board, 2007) and to be able to discuss multiple perspectives and demonstrate a level of understanding of the critical issues. It is not primarily a test of general knowledge as writing skills, comprehension skills and the correct use of English are central to the subject.

The teaching and learning of the General Paper essentially trains students in developing a critical perspective to make sense of global and national issues and a voice with which they can communicate their views on questions of human values, habits, global changes, and inequalities. Some examples of General Paper questions for Paper 1 are offered below:

‘The view of the majority is always right.’ Do you agree?

How important is a sense of history in shaping the future of Singapore’s society?

Should poorer countries develop their tourist industry when the basic needs of their own people are not being met?
‘Advertisements are often entertaining, but they rarely affect consumer choice.’ Is this your experience?

(University of Cambridge Local Examinations Syndicate, General Paper, Paper 1 Oct / Nov 2007)

The nature of these essay questions demand that students articulate a particular stance on the matter, substantiate their views with some evidence or knowledge of examples and consider all relevant factors and possible opinions.

Relevance and Suitability of Independent Learning

Independent learning activities are directly relevant to the General Paper because of several reasons. The content knowledge expected of General Paper candidates is easily accessible through newspapers, current affairs magazines, documentaries, websites and online articles, making it easy to learn independently. Students are encouraged to read widely to acquire linguistic skills and gain an understanding of topics across disciplines. Prior knowledge, interest in specific subjects and an insatiable appetite for reading are attributes that are desirable for GP. While teachers may introduce a particular topic to students and offer an overview of the pressing issues, a deep appreciation of the arguments and dilemmas in the topic cannot be entirely achieved within curriculum time and it is the student’s responsibility to do the research or reading. Even if the teacher has covered a particular topic rather comprehensively, General Paper questions draw links across disciplines and it would be unrealistic to believe that a teacher can effectively cover every possible topic or inter-disciplinary link. Instead, brainstorming skills which are taught to students are meant to be applicable to different essay questions. In addition, with the level of understanding varying from student to student and different abilities to retain information and make connections between prior knowledge and an essay question, much room is left for independent learning to enable a student’s appreciation of a particular topic.

With the competing demands of other skills that need practice such as writing coherently, employing correct usage of language, writing an introduction, substantiating a claim with evidence and managing counter-arguments, the General Paper teacher has to be selective about the learning approaches used. Teacher-centred presentation of arguments may give the teacher a false sense of security and would not be equally effective for learners with different learning styles, especially 17 and 18-year-olds who need to be stimulated with more independent learning activities. Some of the aims of the General Paper syllabus such as developing ‘skills of evaluation of arguments and opinions’ and promoting ‘extensive and independent reading and research’ (Singapore Examination and Assessment Board, 2007) are in agreement with the aims of independent learning. It is only when students heed the advice of teachers and see it as their responsibility to start reading, gather information, evaluate ideas and decide on the arguments they are in favour of or are opposed to, that the aims of independent learning are realised. Some students enter the General Paper classroom with a habit of reading and are already attuned to current affairs, and independent learning in the subject further challenges them and stretches the advantage they have. For learners who come with little prior knowledge and do not have a habit of reading, it would be foolish to think that they will acquire the skills to do well in the subject if they do not make the effort to do some independent learning, especially if there is a task that has been set for them. That said, independent learning is but one particularly useful strategy with a great amount of potential from a host of other learning strategies that educators would employ to teach the subject.
AN INDEPENDENT LEARNING BLUEPRINT

Implementation

A Vision of Independent Learning

The A-level curriculum is a rigorous one with students on the average taking 4 content subjects (for example Mathematics, Physics, Literature, History) of which 3 are taken at the H2 level (higher level) and 1 at the H1 level, and General Paper, Mother Tongue Language and Project Work also at the H1 level. The complexity of these subjects, the addition of new subjects such as Economics, and the short amount of time available make the task of preparing students for the A-level examination a demanding one. At the college where the study of independent learning was carried out, a series of envisioning sessions pointed to a common desire to develop independent and adaptable students. Beyond preparing students for the examination through lectures and tutorials, there was a consensus, culminating in ‘a whole-institution approach’ (Teaching Expertise, 2004), that students needed opportunities to explore, reflect and challenge themselves intellectually with facilitation by teachers and not reliance on them. There was faith in the belief that independent learning would prepare these college students for the transition to university education (Raaij and Wankowski 1981) and for life.

Teachers thus needed to re-consider their teaching approaches if they wanted their students to be flexible, reflective and self-reliant. Each department sought to find ways of designing independent learning activities that would not take away from preparing the students for examinations and simultaneously enable individual growth and autonomy. These independent learning opportunities were certainly not about leaving students on their own but instead incorporating scaffolding and appropriate junctures for checking their development.

Scheduling Independent Learning Opportunities

For General Paper, there was a combined effort at the department level to promote independent learning activities such as the use of a discussion forum to give room to individual voices outside of the classroom; individual reflection of essays; and e-learning days. Teachers were also able to exercise their creativity in designing their own tasks such as research assignments, or book and article reviews for their own classes. The table below is a schedule of the independent learning opportunities undertaken at the department level.

<table>
<thead>
<tr>
<th>Term</th>
<th>JC 1 Activities</th>
<th>JC 2 Activities</th>
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<tr>
<td>Term 1 (Jan – March)</td>
<td></td>
<td>Online Discussion Forum;</td>
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<td></td>
<td></td>
<td>Reflection Cycle for Essays</td>
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<tr>
<td>Term 2 (March – May)</td>
<td></td>
<td>Article Review</td>
</tr>
<tr>
<td>Term 3 (July – Sep)</td>
<td>E-learning</td>
<td>E-learning (optional)</td>
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<tr>
<td>Term 4 (Sep – Oct)</td>
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The online discussion forum was particularly effective in encouraging students to think critically about issues and provided a safe environment for less vocal students to express themselves. The reflection cycle and article reviews yielded reflections and reviews of varying quality but nevertheless provided opportunities for students to rely on their own capabilities. An awareness of the rhythms of the school calendar – the examination periods and revision periods - is crucial for scheduling these activities. There were not as many independent learning activities for the JC1 students as the emphasis for much of the first year would be on skills and content-mastery to allow
familiarisation with the new subject. It was only in the third term that e-learning days were scheduled. For the JC2 students, there was sufficient prior knowledge for them to be challenged with independent learning activities but these could only be done in the first half of the school year, before the period of intensive revision in the third and fourth terms.

Alongside these activities, there were also thematic integrated learning programmes for student enrichment. Opportunities that supported the teaching of particular themes such as talks by invited speakers, visits to organisations or museums, and student presentations were available for selected themes such as environmental issues, culture and the arts and science and technology. The scheduling of these integrated learning programmes was also dependent on the rhythms of the school calendar and on whether the themes lent themselves to a variety of enrichment opportunities. Once again, the rationale for the integrated enrichment opportunities was to support the culture of independent learning and students were empowered with the option of signing up for these activities out of interest and encouraged to write a review or reflection or share with their peers what they had learnt.

While integrated efforts were made at the department level to promote independent learning, teachers were given the flexibility to decide on the learning objectives, specific nature, steps, leading questions and feedback channels for their students. Thus, every discussion forum was unique and research assignments covered a diverse range. Teachers were also free to introduce their own unique activities that promoted independent learning and which catered to the different learning styles (aesthetic, visual, reflective, pragmatic or active) apart from the agreed department efforts. After all, some degree of autonomy and independence for teachers was definitely called for before they could be expected to design independent learning activities for their students.

A review of Independent learning

In aiming to understand the impact of independent learning (IL), both students’ and teachers’ perspectives were sought. Teachers and students were located in the learning environment of a college (pre-university setting). In this context, IL was developed for the teaching of General Paper (advanced English language). Both stakeholder groups were given a 3 part survey that required them to rate the importance of IL, answer a series of likert scale based questions and several open-ended questions. Through these responses, coupled with observations made and informal insights gathered, a better understanding of IL was gained.

It was found that generally both stakeholder groups found IL to be meaningful and effective. Both teachers and students rated IL highly and considered it to be an important part of learning and teaching, with many rating it 4 and 5 on the scale of 5 highlighting its importance as a critical life skill (Candy, 1991). However, it is also important to note that students in particular, registered a higher number indicating 2 and 3 on the scale. This seems to suggest a lack of readiness or even reluctance on their part to adopt IL as an important aspect of their learning strategy and culture – an issue that will be further discussed in the next few sections. While many have noted the importance of IL, it is also necessary to understand if everyone puts it into actualization. The next few sections will map out the benefits noted by students and teachers and map out some of the key challenges that impede the flourishing or sustainability of an IL environment.

Students

The key benefit that students raised in relation to IL was its value as a life skill. Many students noted that IL was important especially as they prepared for the university – which is traditionally built on the culture of IL – whether it is in developing skills of individual resourcefulness or learning to close
gaps independently. Students need to acquire the skills of doing their own research and flex their critical thinking as they need to discern quality and reliability of information gathered. This was a skill that they felt was also transferable across all subjects and more importantly to their work life in their future. Many students, given their utilitarian views of education also considered IL for its short term importance to academic achievement. Chief among their perceptions was that IL helped them think through their arguments and formulate ideas which can later be checked against what their tutors or peers suggest. In the case where their independently crafted responses are validated, they feel it boosts their enthusiasm to learn and where the opposite happens, they are then aware of the gaps or deficiencies in their own thinking and learning.

Students also feel that independent learning enhances their desire to learn and contribute, often giving them opportunity to develop new knowledge that is not taught in class thus increasing achievement (NWREL, 2005). It adds to their confidence, builds motivation and makes them more disciplined in their learning approaches. The last of these holds particularly high importance because of the rigour of the college curriculum which they need to engage in, where being overly dependent on the teachers and not finding the white space to think through the curriculum materials can be disadvantageous. Students thus learn to be responsible for their own learning. Students also appreciate the ability to make independent decisions (Ashenden & Milligan, 1993) or make their own choices ((Mendoza, 2000; Stone, 1995) in an IL environment. This they feel gives them a bigger stake in and allows them to dictate and drive their own learning gaining internal locus of control (Miller et al, 2003). This is especially significant for a more open-ended subject like GP where students can choose to selectively and strategically select from a plethora of topics that they can be possibly examined on in the examination. Since everything cannot be covered in class for reasons of time, students must take the initiative to go the extra mile to fill their knowledge gaps. It has been often observed that students who commit to such independent work are often more successful in securing better grades and those who depend solely on the basic scaffolds offered by the teacher.

It also found that IL creates a positive and inclusive environment of learning – where the knowledge of students is also prized and adds to the variety of information that is constructively created (Abu, 2005). This empowers learning and the learners, since they are driven by their own interests and curiosity, creating a dynamic learning environment. Students feel that such an environment allows them to learn at their own pace and affords flexibility. Such an environment encourages deep learning (Ramsden, 1992) to take place – which is important to ensure quality learning and knowledge acquisition.

**Teachers**

Teachers also generally found IL to be beneficial on two fronts – for student learning and for self. Many teachers recognized that IL is important for student learning especially in managing diverse students of different academic calibre and motivation among some of the aspects. It was found to be useful to partition the class into different groups and send some groups to work independently in and outside class while the teacher made time to work with smaller groups of students to address their weaknesses. This ensured that everyone is meaningfully engaged and everyone’s learning needs were met in an efficient and effective manner.

Teachers also found IL to be meaningful because it encourages a mindset shift in students to be more accountable towards their own learning (Duhon-Haynes, 1996; Robinson, 1994). Teachers found that when they could trust their students to work on certain areas of their curriculum independently, especially areas contingent on factual knowledge, precious time in the class could be spent on higher order skills and tasks. This ensures students took some ownership in their own learning and found meaning in what they learnt instead of passively absorbing information. This would in the long term reduce the oft cited problem of high dependency on
teachers – a culture that has been ingrained in students from earlier schooling experiences. Removing such a culture is important as students need to see the importance of thinking on their own and processing information independently and gaining stronger self-efficacy (Linnenbrink & Pintrich, 2003). Encouraging this behavior was especially important as the college also used IL when teachers were unable to be in school physically due to being ill, on course or had to attend to urgent personal matters. In such instances, students were empowered enough to be left alone to manage their own learning or decide how best time could be used.

Independent learning is also another important strategy that can be employed to energise learning and to add variety. Students are often easily disengaged with continuous teacher-talk, thus giving them space to construct and add to the knowledge-making (Kordalewski, 1999; Stone, 1995) and presenting process makes the class livelier overall. Teachers who employ IL often also find it a welcome and refreshing break to engage with the sometimes novel information and knowledge possessed by students that might not be discovered in a class that is entirely based on teacher-talk. Teachers also realize that some areas of content within GP are also easier taught through IL as they may not be effectively communicated or delivered within class. One example was the teaching Culture & The Arts through a series of introductory e-learning modules. Furthermore, given the breadth of information that needs to be covered, it is understood that realistically, not everything can be covered in class. Even material that is addressed in class, needs to be substantiated with further reading, otherwise knowledge gained is at best only superficial.

Many teachers are generally supportive of incorporating IL strategies within their own classes because of the support they receive. In the college, there is active sharing of resources that can be used to design an IL lesson or task. This helps teachers plan which lessons they may want to use. Furthermore, at the level of the department, there are also several initiatives designed by various teacher teams to encourage IL. Some examples have included designing reflection processes for students or teaching an entire module through e-learning or designing a series of integrated learning experiences that are premised on IL. These platforms that are often also factored into the schemes of work allow teachers to pick and choose and apply and modify them to suit their students. This reduces the amount of time that each individual teacher needs to invest in designing such lessons. Such informal and systemic platforms would thus be very beneficial in building a culture of IL.

However, ironically, many teachers felt that incorporating IL does not free up time for them and they do not actually see more available time for their own professional development. Instead, more time is utilized to track students as they engage in their IL activities. It must be noted however, that this is largely because there is still somewhat of a fear to leave students entirely on their own in their learning as they may not be able to secure the needed outcomes. Teachers in fear of the high-stakes environment in which they operate thus invest this time in ensuring that learning outcomes are being met. However, teachers do not deny that they do build their own capacity by learning from others and sharing their resource bases. Many have thus noted that continued and frequent sharing of best practices, department or level initiatives and specialized training would actually boost their interest in sustaining and incorporating IL to much greater extents.

**Limited effectiveness**

An important area that emerged in the study is that despite acknowledging the importance of IL, the frequency of IL utilized is low. Many teachers use it only on a needs basis – whether the need is dictated by the nature of topic, time of year or mandated by the scheme of work. This means that IL at this point has not become a natural or even instinctive part of the learning environment. This practice needs to the change especially given the importance of IL in the context of college
curriculum. Furthermore, encouraging it on a more regular basis will be a step towards shifting the mindsets of students who at this point are fairly dependent on their teachers for assistance.

Another important concern that seems to impact the continued sustainability of fostering an IL culture is the uncertain outcomes associated with it. Many teachers have noted that IL does not ensure that the aims and objectives set out can be achieved as it is dependent on the nature and interest of students, the quality of the IL design and time available. This is a valid concern given that the college curriculum is a very rigorous one that spans less than two years and has massive content coverage. Adopting an IL approach that does not promise confirmed results may then be deemed as a waste of precious curriculum time. Students, especially weaker ones, also seem to adopt a similar mindset as they feel that too much time is wasted if they need to figure out their own learning and worse still if they are incorrect in their approaches. Thus, a fear of failure has discouraged deep learning (Ramsden, 1992). Consequently, many prefer to revert to the teachers for answers. Given that both teachers and students are operating in a results-oriented environment, tangible outcomes are often prized above all else and more open strategies like IL get sidelined.

Challenges

While the issues of frequency and outcomes impact the effectiveness of IL, there are also several other perennial challenges that need to be overcome. These are namely, time, the college-wide learning culture beyond the department, attitudes of stakeholders and competence of stakeholders.

One of the key issues that faces every teacher is time (Cambone, 1994). Time impacts the ability to incorporate new initiatives into existing practices. One of the key aspects of time that impacts IL is the fact that a good IL process should not be rushed. IL requires space for research, reading, processing, reflection and learning by trial and error. It is through these processes, that deep learning is gained as students learn to grapple with the content they have on hand (Ramsden, 1992). However, given that syllabus often need to be completed by stipulated times and certain tasks need to be done at certain times, such luxury is not available. Thus, any IL experience students have is limited and at best sporadic. This is perhaps something that may not be entirely easy to address as creating such white space for IL to take off means certain opportunity costs in other areas such as grades and amount of content covered to cite a few. In addition, teachers also need time to design good IL lessons and as is commonly known time is often a rare commodity and is competing with many other urgent demands. Realizing that this is a roadblock that is not easy to remove, effective strategies need to be designed to manage the lack of time and prioritize what is important for students and in what doses.

Another notable challenge evidenced in the case study was that often the efforts to create an IL culture within one department was undermined by strategies adopted in another department such that students are rendered confused. Certain departments that continue to adopt rigid, teacher-centred approaches often counter the efforts of other departments trying to create more student-centric learning. This implies that change needs to be more coherent across the entire school and not just the effort of single individuals or departments. Students need to realize that IL is a whole-school or an entire learning philosophy or culture and not just a subject specific skill. It is only when everyone is singing to the same tune can the ideals and practices of IL resonate and be taken up meaningfully by students.

A related issue is the attitude of stakeholders towards IL. There are certainly teachers and students who actively dismiss the value of IL as they do not see the immediate outcomes, do not see it as ‘real’ learning and feel that their traditional practices have thus far served them well. However, there is a need to realize that what may have been considered adequate or
acceptable in the past may not be enough for the future. As schools see a greater diversity of better-ability students, higher order strategies like IL need to be utilized more effectively to engage students and teacher-talk may not resonate with them. Given that the workplace and tertiary education also demand skills of independent thinking, creativity and innovation, IL is potentially one of the key strategies to build such cultures. Students also need to change their mindsets and take more risks in their learning by taking charge and charting their own directions rather than be at the behest of what the curriculum or teacher chooses. However, teachers must note that they will inevitably face students who are resistant towards such approaches as they do not trust their own decisions and do not wish to risk their results (Linnenbrink & Pintrich, 2003).

Another significant challenge that is cited in the literature is often the issue of teacher and student competence in managing more student-centred or authentic learning experiences. As earlier discussed, teachers may lack the confidence to handle lessons that have a greater IL component as it means relinquishing some control, not having all the answers and not being certain if learning is actually taking place and how exactly to measure or document such learning. These challenges are faced by teachers of a variety of experiences and backgrounds. A common scapegoat for not incorporating such authentic learning practices is also student competence. Often, many teachers cite that students do not have the maturity and skill to manage IL. Furthermore, it is also argued that the quality of their IL may not be strong and thus results in wasted time and duplicated effort to correct errors. Thus, only teachers’ knowledge is given legitimacy (Paechter, 2001). However, what teachers fail to realize is that choosing to see students as being unable to manage the demands of IL traps them in a vicious cycle where they soon become averse to it and then resistant or cynical to be more independent in their efforts. It is thus necessary to start inculcating the habits and building the culture of IL at the soonest possible time and develop an open-mind to the process.

**AT THE CROSSROADS: A CURRICULUM STRUGGLE (DILEMMAS)**

It is clear that building an IL culture is not an easy task. While school leaders and teachers alike understand the importance of building an IL culture, they face numerous dilemmas that are often difficult to resolve. These dilemmas are the extensive focus of results that negate development of IL, the level of competency held by students to be independent learners and for teachers to design effective IL lessons as well as thinking how systemic changes are needed to address old habits that have been held on to since before.

**Result-oriented culture vs an IL culture**

One of the key dilemmas that need to be addressed is the constant struggle between achieving results and yet offering students authentic learning experiences where they get to dictate and be drivers of their own learning. The pressures of accountability have often impeded the development of more authentic learning practices since the achievement outcomes are not always clear or evident (NWREL, 2005). This however is difficult and especially so in an educational context like the JC where the 2 year programme is geared towards helping to achieve results that have a direct bearing on university entrance. Thus, more important learning principles such as IL which arguably require more time and effort and cannot confidently ensure results and thus, take a backseat.

It is however necessary to question if choosing to continually neglect IL is a desirable approach – a skill which also has an important bearing on students as they move on to pursue their tertiary education. Are grades alone sufficient? Are students able to think and function in a situation that they are not familiar with? Are the skills they acquire to achieve their grades
important and to whom and in what contexts? These questions need to be answered in order for some reprioritization of the importance placed on achieving results alone. While many may argue that opportunities for IL exist among other school platforms, the argument of this paper is that those platforms may perhaps be insufficient and cause students to see them as being separate and thus unimportant. It is therefore necessary for IL to be a more integrated aspect of learning itself especially in the curriculum.

Building competency

Another dilemma faced is to build competencies to acquire the skills and manage the challenges posed in developing an IL environment. Perhaps the most difficult aspect to reform is often mindsets. It is commonly found that stakeholders feel most comfortable in their own comfort-zones and do not wish to change or question the way things are done (NCREL, 2003). This has led both students and teachers to be very wary of new initiatives.

Teachers need to acquire the skills of being critical in thinking about their pedagogies. It does not mean what has worked before can continue to work, especially since the learning environment, profile and needs of students are evolving. Teachers should be assisted to see the merits of approaches like IL and not be forced to implement a strategy as that too can be stifling. Oftentimes, good ideas don’t get implemented because the appropriate platforms or support was not provided. Thus, providing training in certain skills such as lesson design may be appropriate. What is perhaps more important is to develop a culture of open learning where best practices are shared, recognized and validated. Groups of teachers can also be given space to work collaboratively to prototype IL ideas they develop, a notable process that has taken off since the implementation of the Teach Less, Learn More policy in Singapore (MOE, 2004). This works to enhance their competencies in becoming more confident and champion IL.

Students too need to build the competencies of IL. It must be understood that creating such mindset shifts are not easy for students especially since they have been used to being closely guided for the last 10 years of schooling. Thus, suddenly being expected to operate independently may not be entirely welcome or handled well. Some strategies to ease in the flourishing of an IL culture could be:

1. Start by providing a lot of scaffolding
2. Work in pairs and small groups first to help shift control to students
3. Have 1 activity each week that is premised on IL (e.g. independently source for an article)
4. Openly validate students who showcase IL practices
5. Create an atmosphere where errors are acceptable
6. Encourage questioning and inquiry – don’t take the easiest and shortest path to gain answers

There are certainly a plethora of activities or ways to encourage IL. It is important also for teachers to express belief in the abilities of students, so that they reflect greater confidence in being independent learners. It is important to recognize that IL is fostered by a school environment which is sensitive, flexible, democratic and responsive to the needs of students. This encourages a strong sense of purpose and motivation on the part of students (Saskatchewan, 2007).

Educational restructuring

On a final note, developing an IL culture is important and for it to take flight in education, policy makers do need to reflect on the system. It is important to question how learning is conducted in earlier phases of education and what values and skills that hopes to achieve. There is a need to
broaden the myopic focus of thinking solely about results and achievements, albeit noting its importance. It is only when students can reduce their dependence on teachers and take on the learning journey on their own, can we be certain that real, meaningful and deep learning has taken place.

CONCLUSION

It is clear that developing an IL culture is an important educational thrust, especially today. This paper has outlined the perceptions of IL in one Singaporean college and raised several key issues that have also been noted in other contexts. It is important to note that the road to achieving an IL culture is laden with challenges and dilemmas but is nonetheless an enterprise that must be pursued for the gains far outweigh the potential losses of not incorporating it.

REFERENCES


