

# **Conceptions of learning held by upper primary children in government schools in Brunei Darussalam**

Jainatul Halida Jaidin  
**Queensland University of Technology**

## **Abstract**

This study examined the qualitatively different ways in which upper primary children think about learning in government schools in Brunei Darussalam (henceforth called Brunei). Sixteen children aged 8 to 11 years from two government schools in Brunei participated in a series of scenario-based interviews. A phenomenographic analysis revealed three categories of description in the outcome space: learning as acquiring, learning as remembering and learning as active participation. The results demonstrate quantitative conceptions of learning, which are at odds with the constructivist philosophy of the Ministry of Education in Brunei. Teaching implications are discussed.

## **Introduction**

One of the principal goals in education worldwide is to produce self-regulative learners who actively construct their own knowledge through meaningful learning (Novak, 1993; Van Hout-Wolters, Simons & Volet, 2001). This goal is also embedded in Brunei's new education system called the 21<sup>st</sup> Century Education System (codenamed SPN21), introduced recently by the Ministry of Education.

Brunei is a small country in South East Asia where education is acknowledged as central to the strengthening of human capital. Since the establishment of a Ministry of Education in 1954, the education system in Brunei has been described as content and examination oriented (Majeed, Fraser & Aldridge, 2001). Such a system is typical in Asia (for example, Hong Kong and Singapore) in which academic qualifications are highly valued (Sharpe, 2002; Wong, 2003) where children are tested regularly with examinations throughout their schooling career (Yeo & Clarke, 2006). In Brunei, particularly in government-funded schools, children begin their schooling career at the age of six. At Primary 6, which marks the end of their primary school years, children in government schools in Brunei sit for their first public examination called the Primary School Assessment (PSA) examination. The children's

performances in PSA are significant indicators of school success (Scott & Fisher, 2002). In addition to the pressure to complete a comprehensive syllabus prescribed by the Ministry of Education, such an expectation adds more pressure on teachers to produce good results in PSA. For these reasons, teachers in Brunei opt for traditional teaching methods where children are mostly required to listen to their teachers' explanations and copy notes on the board (Scott & Fisher, 2002). Children are mainly passive in class and they rarely raise questions during lessons (Attwood & Bray, 1989; Zaitun, 1997; Charleston, 1998; Asmah, 2001; Scott & Fisher, 2002).

A new education system along with other measures aimed at promoting developmentally appropriate curriculum is a significant change in the provision of educational services in government-funded schools in Brunei. This change has affected the traditional educational settings prevalent in government-funded schools and thereby, a change in the government's views about how children should learn from transmissive, teacher-centred beliefs to more learner-centred constructivist view on learning. While it is clear what the government believes constitutes learning for children in primary education, what is not evident is what children think about their own learning.

Conceptions of learning are important because there is a substantial body of research which shows that such conceptions held by students can influence approaches to learning, which in turn, affects the quality of learning outcomes (Biggs, 1989; Marton & Saljo, 1976; Marton, Dall'Alba & Beaty, 1993; Saljo, 1979; van Rossum and Schenk, 1984; Watkins, 1983). However, most of these studies have focused on university and secondary school students' conceptions of learning, not primary school children. Only two studies by Pramling (1983) and Stekettee (1997) have investigated what preschool and primary school children think about learning. The current study aims to address this gap in the literature by investigating what upper primary children think about learning in government schools in Brunei. In so doing, it adds to the limited literature on children's conceptions of learning from a cross-cultural perspective.

Previous studies on the conceptions of learning have predominantly been carried out using phenomenography (Marton, 1981). The phenomenographic structure of these

studies has been quite similar, although most of these studies have been carried out in different contexts and independently of each other (Eklund-Myrskog, 1998). Within the phenomenographic structure, studies were aimed at describing conceptions of learning as experienced or understood by groups of students.

The earliest set of conceptions was reported in 1979 when ninety people in Sweden were interviewed and asked to explain what they actually meant by 'learning'. Five conceptions of learning were identified and these were: (1) learning as an increase in knowledge; (2) learning as memorising; (3) learning as acquiring facts, skills and methods that can be retained and used as necessary; (4) learning as making sense or abstracting meaning; and finally, (5) learning as interpreting and understanding reality in a different way (Saljo, 1979). Marton, Dall'Alba and Beaty reconstructed these conceptions in 1993 when a sixth conception of learning was identified. The sixth conception of learning was, (6) learning as a personal change. These conceptions were divided into two broad categories, namely: quantitative and qualitative (Marton et al., 1993; Purdie & Hattie, 2002). The first three conceptions of learning reflect a quantitative belief that does not go beyond reproducing or applying what has been learnt. There is a clear transition to qualitative categorisation from the fourth conception onwards. Qualitative conceptions reflect a constructive view of learning that aims at a deeper understanding of knowledge (Ramsden, 1992). The conceptions were derived from studies conducted among university students.

Preschool and primary school students held similar variation of conceptions. In her study with Swedish preschool children between the ages of three and eight, Pramling (1983) identified three conceptions of learning. The children conceived learning as (1) doing; (2) knowing and (3) understanding (Pramling, 1983). While learning as knowing and understanding appeared in the conceptions of learning held by university students, learning as doing was found absent. A similar set of conceptions was found among primary school children in Australia and the conceptions were: (1) generic learning; (2) learning as physically doing; (3) learning as knowing more things; (4) learning as knowing harder things; (5) learning as searching for meaning; and (6) learning as constructing new understanding (Stekettee, 1997). These conceptions were elicited from six primary school children in Australia. Although the sample of Stekettee's (1997) study was limited to six children, the study has demonstrated that

there are qualitatively different ways in which children at primary school level experience learning.

A vast amount of literature has reported the possibility of identifying qualitatively different ways of experiencing learning among groups of students in different cultural contexts (Biggs, 1996; Dahlin & Regmi, 1997; Duarte, 2006; Klatter, Lodewijks & Aarnoutse, 2001; Marton, Dall'Alba & Tse, 1996; Pillay, Purdie, Boulton-Lewis, 2000; Sachs & Chan, 2003; Zhu, Valcke & Schellens, 2007). A considerable amount of these studies have been conducted in Western countries such as Sweden (Saljo, 1979), the United Kingdom (Giorgi, 1986; Marton, Dall'Alba & Beaty, 1993), the Netherlands (Klatter, Lodewijks & Aarnoutse, 2001), Finland (Myrskog, 1993) and Australia (Prosser, Trigwell & Taylor, 1994). Similar studies have also been conducted in Asia, Africa and South America (Myrskog, 1998).

This study is concerned with how learning is understood by upper primary children in Brunei. It focuses on the range of ideas or thoughts held by these children about learning in government schools. What do they understand about *learning*? How do children interpret the experience of learning? The main purpose of this study is to develop a better understanding of children's conceptions of learning and seeks to illuminate the various conceptions held by these children. This study will contribute to the existing body of knowledge in the field of children's conceptions of learning. The research question addressed in this study is:

*'What are the qualitatively different ways in which upper primary children in Brunei government schools think about learning?'*

### **The study**

This study employed a phenomenographic approach (Marton, 1981; Marton, 1986; Marton & Booth, 1997) to identify and describe the qualitatively different ways in which upper primary children think about learning in government schools in Brunei. Phenomenography, according to Marton (1988), aims at 'mapping the qualitatively different ways that people experience, conceptualise, perceive, and understand various aspects of, and various phenomena in, the world around them' (p. 178).

A phenomenographic approach, using semi-structured interviews, is well suited to the needs of this study as it enables the collection, description and interpretation of data reflecting different individual conceptions of phenomenon (Saljo, 1979; Svensson, 1984; Marton, 1981; Marton, 1984; Marton, 1988).

### *Participants*

Sixteen upper primary children from two government schools in Brunei participated in this study. A sample size of ten to fifteen participants is feasible in phenomenographic studies (Ballantyne, Thompson & Taylor, 1994; Bruce & Gerber, 1994; Trigwell, 2000). To address variation and reveal as many viewpoints as possible, factors such as age range, academic abilities, gender and different upper primary levels were taken in consideration when selecting the interview sample for this study (Bowden, 1996). The participants' age range was between eight and eleven years old. In terms of academic abilities, seven of the participants were average students, two were below average and another seven were above average. Their previous records of examination results determine the participants' academic ability. Five of the participants were boys and eleven were girls. Twelve of the participants were in Primary 5 and four of them were in Primary 4. For ethical reasons, pseudonyms are used in the report of the findings.

### *Context*

Primary schools in Brunei are either government-funded or non-government-funded. Government-funded schools provide free education with a yearly school fee of only five Brunei dollars (equivalent roughly to four Australian dollars). Free education means all textbooks and workbooks are provided free. In non-government-funded schools, parents provide all the school materials needed. These are fee-paying private schools, which can cost parents as much as two thousand Brunei dollars per term. Parents who are financially well off send their children to these schools. These children are exposed to a more international-based curriculum taught by a mixture of local and international teachers.

Children in Brunei government schools generally begin their primary school years at the age of six years old, that is, after spending a year in the preschool level. In non-government schools, children can start schooling as early as three years old in

kindergarten. After preschool, the primary level in government schools is divided into lower primary (Primary 1, 2 and 3) and upper primary (Primary 4, 5 and 6). The age range of upper primary children is between nine and eleven years old. Brunei practices bilingual educational policy, which means children learn subjects in both Malay and English languages. This policy was introduced in 1984 to ensure high degree of proficiency in both languages; Malay being the national language and English the international language. Children are taught in Malay until Primary Three with English a subject in the curriculum. From Primary Four onwards, mathematics, science and geography are taught in English and English remains a subject in the curriculum while other subjects are taught in Malay.

### *Semi-structured interviews*

In-depth data was gained through semi-structured interviews using a scenario approach. The decision to use scenario-based questions for interviews was made after a series of pilot studies were conducted in Brunei. Having been taught in traditional and didactic settings, both upper primary children involved in the pilot studies appeared reticent and gave limited information about learning. Two scenarios were constructed from the children's limited information about learning in government schools in Brunei. In this way, each scenario depicts the children's actual experiences of learning at school. These scenarios (see Appendix 1 and Appendix 2) were used in actual data collection to gain richer responses from the participants. The scenarios were pilot tested prior to actual data collection to ensure that the children's views were elicited appropriately.

Data collection was carried out in two phases: Phase 1 was carried out in September – October 2006, and Phase 2 followed up in November – December 2006. Each phase of data collection used different sets of scenario-based questions. The first scenario illustrates a boy's learning experience at school and at home. As a response to this scenario, the participants were asked to share their thoughts about the boy's learning experience. As a follow-up, the second scenario tells a story about two boys with different preferences in ways of learning. The participants were asked to comment on both experiences and share their preferred ways of learning at school. Responses on these scenarios provided information for follow-up questions that enabled further explorations of meanings given to the phenomenon. Probing questions such as "What

do you mean by...?”, “When you said ... can you give me examples of what it means?” and “Tell me more about ...” were also used for additional clarification. These questions were particularly significant in Phase 2 of the study to clarify several meanings introduced by the participants in Phase 1. Interviews were audio-recorded and transcribed verbatim.

### *Analysis*

The analysis for this study involved four stages. Stage 1 was setting up individual profiles for all participants. Each individual profile contains excerpts of utterances relevant to the overarching question “What do you think ‘learning’ means?”. Once individual profiles were set up for all participants, two aspects of learning became apparent to the researcher’s attention, namely: the ‘what’ and ‘how’ aspects of learning.

In Stage 2, utterances indicating the two aspects of learning were tabulated (see Appendix 3 and Appendix 4) and marked according to the transcript from which they were taken. At this stage, the phenomenon was interpreted in terms of two aspects and not as a whole experience.

In Stage 3, the two tables were merged together. Rather than seeing the phenomenon as separate elements, it was then seen as a whole experience. Akerlind (2002) notes that the process of analysis in phenomenography involves iterating between a focus on parts and on wholes. Following Akerlind’s (2002) example, the phenomenon of learning in this study was seen as separate elements as well as a whole experience. Utterances that have similar meanings were grouped together and formed *pool of meanings* (Marton, 1986). Each utterance was examined within the context of each interview and also collectively across all transcripts. At this point of analysis, utterances were decontextualised and separated from each transcript (Akerlind, 2002). Pool of meanings were then organised into initial drafts of categories of description. In order to ensure authentic interpretation of meanings, transcripts were revisited. As key meanings emerged, dimensions of variation that linked the meanings together became clearer. In this study, each category of description is explicated using a structure of awareness that comprises a referential and a structural aspect (Cope, 2002). The former outlines the meaning inherent in the structure and the latter

incorporates an internal and an external horizon (Cope, 2002). Dimensions of variation are aspects of a phenomenon that constitute the internal horizon of the structure (Marton, 1998; Marton & Booth, 1997). Four dimensions of variation (DoV) were identified in this study, and these were: approach, role, intention and academic.

Stage 4 involved a process of iteration in which initial drafts of categories were revised and redrafted until a stable set of categories of description were attained. Frequent reviews of the transcripts provided a depth of understanding of the participants' thoughts and ideas about learning in government schools in Brunei.

## **Findings**

The findings of this study are reported in two sections. The first section explicates each category of description in terms of the meanings ascribed by the participants to the phenomenon of learning in government schools in Brunei. The second section outlines the structural relationship that links each category of description in an outcome space.

### *Categories of description*

The iterative process of analysis in this study revealed three categories of description. The categories are as follows:

- Category 1: Learning as acquiring
- Category 2: Learning as remembering
- Category 3: Learning as active participation

### *Category 1: Learning as acquiring*

The global meaning given to this category is 'acquiring information or knowledge and skills'. In this category, learning is experienced as gaining new information and skills, which signifies an increase in the quantity of one's knowledge. Based on the participants' description, knowledge in this context refers to the content of the subjects that they learn at school. For example, gaining more knowledge in mathematics, English, science, geography and so forth. Skills refer to the abilities that they acquire in subjects such as mathematics, science and English. For example,

acquiring the skill to speak in English, which is a foreign language to the participants.

The following excerpts illustrate these examples:

- P: Learning is to find out about new things.  
I: Can you tell me more about that? Can you give me examples?  
P: Mm...  
I: What do you mean by 'to find out about new things'?  
P: Um, for example, to learn about new things in maths, science.  
(Aminah, Phase 2)

- I: Why do you like learning maths and English?  
P: Learning maths makes me know how to calculate...count stuffs...and English, umm...so that I can speak in English...  
(Fauzi, Phase 1)

### *Category 2: Learning as remembering*

In this category, learning is seen as 'remembering or memorising knowledge and skills'. According to the participants, remembering or memorising the knowledge and skills that they have acquired is an important aspect of learning. Most participants emphasised that remembering or memorising helps them to score good grades and marks in examinations, as noted by Lukman and Danial:

- P: When I remember the answers, I get good marks...  
(Lukman, Phase 2)

- I: Can you tell me what 'learning at school' means to you?  
P: Learning at school is important.  
I: Why is 'learning at school' important?  
P: Because, we must pass the exam.  
I: Learning is important to you because you must pass the exam?  
P: Yes.  
I: What do you usually do to pass the exam?  
P: I read my books and notes, and I try to remember them for the exam.  
I: What does 'to remember' mean to you?  
P: [Silence]...  
I: What do you do to remember the things that you've read?  
P: Um, I think about what I've read.  
I: What happens when you 'think' about it?  
P: [Silence]...  
I: What goes on in your mind when you 'think' about it?  
P: Um, I don't know, I just remember the things that I've read.  
(Danial, Phase 2)

### *Category 3: Learning as active participation*

In this category, learning is seen as active participation in class activities or school projects. The ability to do, perform or conduct learning tasks such as group work, school projects and experiments is an indication of learning. Most of the participants

expressed interest in doing activities as it makes the lesson more interesting and enjoyable. In the words of Bazilah and Lukman,

- I: At first, I asked him to tell me about his favourite subjects. Just like what I asked you earlier... But this boy said that he doesn't have any particular favourites because to him, 'he just learns all of them'. And then, I asked him about what they always do in science classes. He took quite some time to answer this. So I asked him why it was hard for him to remember...and he said that he was usually bored with what they did in science lessons because all they did was just writing down notes.
- P: Really? That must be boring for him and his friends...
- I: You would find that boring too?
- P: Yeah, of course!
- I: So, err, what do you do in science classes here?
- P: We're lucky because our science teacher doesn't make us write down notes all the time...sometimes she lets us do experiments and projects. Like the other day...we did this project...making aquariums...
- I: I see. Did you enjoy it?
- P: Yeah...I think that was fun...

(Bazilah, Phase 1)

- I: When you said 'science is fun' and 'maths isn't fun', what did you mean by that? Can you tell me more about why science is fun and math isn't?
- P: Umm, because, in science we get to learn stuffs like living things, plants and things that dissolve in water...
- I: I see. Umm, and you've learnt all these in science?
- P: Yeah...
- I: So, ah, what did you do while learning these subjects?
- P: Err, umm... [Silence]...
- I: Umm, do you remember what you did while learning about 'things that dissolve in water'?
- P: It was fun...
- I: Can you give me examples of what you did while learning about 'things that dissolve in water'?
- P: We did an experiment...
- I: What kind of experiment? What did you do?
- P: Umm, we poured sugar into a glass of water...
- I: I see. Umm, how about in other science lessons?
- P: When we were learning about 'living things', we planted some seeds, watered them and kept them at home...and we watched them grow into bigger plants...

(Lukman, Phase 1)

### *Outcome space*

The three categories of description revealed in this study are structurally related to one another in an outcome space. The outcome space illustrates a logical relationship

between each category of description in this study. This relationship is illustrated in Table 1.

**Table 1**

*Outcome space*

<b>Referential aspect</b>	<b>Structural aspect</b>			
	<b>DoV 1</b>	<b>DoV 2</b>	<b>DoV 3</b>	<b>DoV 4</b>
	<i>Approach</i>	<i>Role</i>	<i>Intention</i>	<i>Academic</i>
ACQUIRING <i>Learning is acquiring information or knowledge and skills.</i>	Paying attention. Concentrate. Listen. Watch.	Passive.	To comply with teachers' instructions in class.	Subject content and skills.
REMEMBERING <i>Learning is remembering or memorising knowledge and skills.</i>	Read individually. Practice with friends (asking one another questions).	Fairly active.	To pass examinations.	Achievement and result.
ACTIVE PARTICIPATION <i>Learning is seen as active participation in class activities and school projects.</i>	Experiments. Group work. School project.	Active.	To conduct and complete learning tasks.	Performance.

## **Conclusion**

This study revealed three qualitatively different ways in which upper primary children think about learning in government schools in Brunei. These different ways in which learning is understood reflect quantitative conceptions of learning (Marton, Dall'Alba & Beaty, 1993), which do not go beyond reproducing knowledge. As such it contradicts the constructivist view of learning manifested in the new education system codenamed SPN21 introduced by the Ministry of Education. In addition to three categories of description depicting the children's conceptions of learning, four dimensions of variation were revealed in this study. These dimensions of variation illustrate the structural relationship between each category of description and thereby confirm a logical relationship between each category. Overall, the findings of this study are different from the results in Pramling's (1983) and Stekettee's (1997) investigations of children's conceptions of learning. Most apparent is the absence of generic learning identified in Stekettee's (1997) results.

The results of this study indicate that there is variation in the ways in which upper primary children experience learning in government schools in Brunei. The conceptions of learning held by the children in this study reflect a quantitative view of learning. These conceptions differ from the Ministry of Education's constructivist beliefs, and thereby suggest that there is conflict between how the children may conceptualise learning in government schools in Brunei and what the Ministry expects of the phenomenon.

The results revealed in this study shed light on the qualitatively different ways in which upper primary children experience learning in government schools in Brunei. In this way, the study provides an avenue for educators to consider possibilities in creating ways for meaningful learning in government-funded schools and create contexts in which children are given the opportunity to take risks and learn through discovery.

## References

- Akerlind, G. (2002). Principles and practice in phenomenographic research. Proceedings of *Current issues in phenomenography symposium*, Canberra.
- Ainscow, M., & Muncey, J. (1998). *Meeting individual needs: Studies in Primary Education*. London: David Fulton Publishers.
- Asmah, M. (2001). *The quality of preschool education in Brunei Darussalam*. Unpublished doctoral thesis, University of Exeter, United Kingdom.
- Attwood, J., & Bray, M., 1989, Wealthy but Small and Young: Brunei Darussalam and its Education System. *Education Research and Perspectives*, vol. 16 No. 1, June 1989.
- Ballantyne, R., Thompson, R., & Taylor, P. (1994). Principals' conceptions of competent beginning teachers. In R. Ballantyne & C. Bruce (Eds.), *Phenomenography: Philosophy and practice. Proceedings of the 1994 Phenomenography Conference* (pp. 23-45). Brisbane: Centre for Applied Environmental and Social Education Research, Queensland University of Technology.
- Biggs, J. (1987). *Student Approaches to Learning and Studying*. Hawthorn, Victoria: Australian Council for Educational Research.
- Bowden, J. A. (1996). Phenomenographic research: some methodological issues. *Educational Sciences*, 109, 49-66.

- Bowden, J. A., & Green, P. (2005). *Doing phenomenography (Qualitative research methods series)*. Melbourne, Vic: RMIT Publishing.
- Bruce, C. S., and Gerber R. (1994). Towards university lecturers' conceptions of student learning, in *Phenomenography: philosophy and practice*. Edited by R. Ballantyne and C. Bruce, Proceedings, QUT, Brisbane 1994, pp. 57-70.
- Burke, C., & Grosvenor, I. (2003). *The School I'd Like: Children and young people's reflections on an education for the 21st century*. London: Routledge Falmer.
- Charleston, R. (1998). Implementing a developmental perspective of learning in the first year of school: Brunei Darussalam. *Proceedings of the Australian Association for Research in Education Conference*, November 29-December 3, 1998, North Terrace Adelaide.
- Cope, C. (2002). Using analytical framework of a structure of awareness to establish validity and reliability in phenomenographic research. *Proceedings of the Current Issues in Phenomenographic Symposium*. Canberra: CEDAM, Australian National University.
- Eklund-Myrskog, G. (1998). Students' conceptions of learning in different educational contexts. *Higher Education*, 35, 299-316.
- Majeed, A., B., Fraser, J., & Aldridge, J. (2001). Junior Secondary Mathematics Student's Learning Environment and Satisfaction in Brunei Darussalam. *Proceedings of The Annual Conference of the Australian Association for Research in Education*, Fremantle, Western Australia.
- Marton, F. (1981). Phenomenography: Describing conceptions of the world around us. *Instructional Science*, 10, 177-200.
- Marton, F. (1986). Phenomenography: a research approach to investigating different understandings of reality. *Journal of Thought*, 21, 28-49.
- Marton, F. (1994). Phenomenography. In T. Husen & T. N. Postlethwaite (Eds.), *The International Encyclopedia of Education* (pp. 4424-4429). Oxford: Pergamon.
- Marton, F., & Booth, S. (1996). The learner's experience of learning. In D. Olsen & N. Torrance (Eds.), *The handbook of education and human development: New models of learning, teaching and schooling* (pp. 534-563). Cambridge, Massachusetts: Blackwell Publishers Limited.
- Marton, F., & Booth, S. (1997). *Learning and awareness*. Mahwah, N.J: L. Erlbaum Associates.
- Marton, F., Dall'Alba, G., & Beaty, E. (1993). Conceptions of learning. *International Journal of Educational Research*, 19(3), 277-300.
- Marton, F., & Saljo, R. (1976). On qualitative differences in learning: I. Outcome and process. *British Journal of Educational Psychology*, 46, 4-11.

- Novak, J. D. (1993). Meaningful Learning: The essential factor for conceptual change in limited or inappropriate propositional hierarchies (LIPHs) leading to empowerment of learners. *Proceedings of The Third International Seminar on Misconceptions and Educational Strategies in Science and Mathematics*, Ithaca, New York.
- Pollard, A., & Tiggs, P. (2000). *What pupils say: Changing policy and practice in primary education*. London: Continuum.
- Pramling, I. (1983). *The child's conceptions of learning*. Goteborg: Acta Universitatis Gothoburgensis.
- Purdie, N., Hattie, J., & Douglas, G. (1996). Student conceptions of learning and their use of self-regulated learning strategies: A cross-cultural comparison. *Journal of Educational Psychology*, 88(1), 87-100.
- Saljo, R. (1979). Learning in the learners' perspectives: Some common sense conceptions. *Reports from the Institute of Education*, 76.
- Scott, R., & Fisher, D. (2002). The impact of an in-service course for primary teachers. *Proceedings of the Annual Conference of the Australian Association for Research in Education*, December 1-5, 2002, Brisbane: Australia.
- Sharpe, P. (2002). School days in Singapore: Young children's experiences and opportunities during a typical school day. *Childhood Education*, 79, 9-14.
- Smith, R. (2002). *Creating the effective primary schools: A guide for school leaders and teachers*. London: Kogan Page.
- Steketee, C. (1997). *Conceptions of learning held by students in the lower, middle and upper grades of primary schools*. Retrieved November 11, 2005. From <http://education.curtin.edu.au/waier/forums/1997/steketee.html>
- Svensson, L. (1984). *Manniskobilden i INOM-gruppens forksning. Den larande manniskan [The image of man in the research of the INOM-group: Man as learner]*. (Report No. 3, the Department of Education, University of Goteborg). Gothenburg: University of Goteborg, Department of Education.
- The Plowden Report, (1967). *Children and their primary schools: A report of the advisory council for education (England)*. Retrieved February 21, 2006. From <http://www.dg.dial.pipex.com/plowden16.shtml>
- Trigwell, K. (2000). Phenomenography: Variation and discernment. Improving student learning. *Proceedings of the 1999 7th International Symposium*, Oxford: Oxford Centre for Staff and Learning Development.
- Van Hout-Wolters, B. H. A. M., Simons, P. R. J., & Volet, S. (2001). Active

- learning: self-directed learning and independent work. In P. R. J. Simons, J. van der Linden, & T. Duffy, (Eds.) *New learning*. Dordrecht: Kluwer Academic.
- van Rossum, E. J., & Schenk, S. M. (1984). The relationship between learning conception, study strategy. *British Journal of Educational Psychology*, 54, 73-83.
- Watkins, D. (1983). Assessing tertiary study processes. In *Human Learning*, 2, 29-37.
- Wong, N. C. (2003). A study on children's difficulties in transition to school in Hong Kong. *Early Child Development and Care*, 173(1), 83-96.
- Yeo, S. Y. & Clarke, C. (2006). Adjustment to first year of schooling – A Singapore Perspective. In *European Early Childhood Education Research Journal*, 14(2), 55-68.
- Zaitun, T. (1997). Focus on the teacher: The transfer of knowledge from teacher education into the classroom. *Proceedings of the International Conference on Science, Mathematics and Technology Education*, January 1997, Hanoi, Vietnam.

## Scenario (Phase 1)

---

**The scenario**


---

Data collection (Phase 1)  
September 2006 – October 2006

A couple of weeks ago I was talking to a boy called ‘Ahmad’ who is in Primary 4 in Brunei. I thought I would tell you his story about learning.

When I asked him about what subjects he liked at school he just said, “*None, I don’t like any because I just learn all of them*”. He told me that in maths he could remember his tables. In Science, he wrote down notes but he was really bored and couldn’t say too much about what he had learnt. When I asked him about Geography he told me that “*The teacher asked us to do some work on what we had learnt that day... and sometimes the teacher just explained stuff*”. He said “*If the teacher asks us to do some work, I just do it*”.

The things he did love were art and computers at school. He said that in Art, “*We did whatever we wanted to... as long as there’s a shape and in computing they sometimes played games*”. This boy loved playing computer games like *Pin Ball* and *Kid Pix*. He would often race home from school in the afternoon, have something to eat quickly and then start playing his computer games. He did not do any homework usually because he loved playing games so much. He was good at learning how to play his *Play Stations*. Whenever he wanted to know how to play one of the new games, he would read the instructions, and work the game out by talking to his best friend who lived next door to him. Sometimes he would re-read the instruction manual just to make sure he had worked out how to make the correct moves in the game. He even started reading computing games magazines to find out more about how other games worked and which games were the latest rage.

<b>Probes</b>	<b>Rationale</b>
What sort of learning do you think this boy liked? What sort of learning do you think this boy was good at? Why?	These probes were designed to help the children reflect on the Ahmad’s learning experience. The aim was to elicit detailed descriptions of what the children think about Ahmad’s way of learning.
What sort of learning do you like at school? At home? Why? How do you know that you have learnt something in (...something they say they like...)? How do you know that you have learnt something in (...something they say they dislike...)?	These probes were developed to shift the children’s focus to their own experiences of learning. They were encouraged to share incidences, which they thought were meaningful learning experiences and gave reasons why these incidences were meaningful to them.
How do your teachers teach you? What do they do to help you to learn? What do you think learning is at school? At home?	These probes were included to help the children describe learning experiences in their respective schools.

**Scenario (Phase 2)****The scenario**

Data collection (Phase 2)  
November 2006 – December 2006

A couple of weeks ago, I talked to two students who go to a government primary school in Brunei. They are both in Primary 5 and they told me their stories about learning. Let's just call student A 'Ali' and student B 'Bahar' okay? Although Ali' and Bahar go to the same school, they go to different classes. I'd like to talk about Ali's story first....

When I met Ali, I asked him to tell me about his favourite subject and why he likes the subject. He told me that his favourite subject is science, because in science, his teacher always ask them to do a lot of activities in groups such as experimenting with real things like sugar, water, dissecting fish, drawing, going to the garden and looking at flowers. He told me that he likes learning through these activities because they don't bore him in class. He also said that he had learnt a lot about the different groups of animals because they did a project on that topic. He said that the activities helped him to learn the topics in science better.

Meanwhile, Bahar told me a different story about learning. When I asked him to tell me about his favourite subject, he told me that he likes mathematics because he likes doing all the exercises in his mathematics workbook. To him, it is a good practice for the exam. He also likes to listen to his teacher's explanations and watch how his teacher works out the examples on the white board carefully so that he can do the exercises later on.

<b>Probes</b>	<b>Rationale</b>
What do you think about the two boys?	This probe was planned for a general discussion about the two learning experiences, which were different to one another.
What sort of learning do you think Ali likes? Why do you think he likes that sort of learning? How about Bahar? What sort of learning does Bahar like? Why do you think he likes that sort of learning?	These probes were designed to elicit the children's thoughts about the different learning experiences.
How about you? What sort of learning do you like? Why? What subjects do you like learning? What do you usually do to learn this subject? Why do you like to learn this subject? How about the subject that you find difficult to learn? Why do you find this subject difficult to learn? What are the signs that show that you have learnt something really well? What happens if you feel like you haven't learnt something? How do you know when that happens?	These probes were included to shift the children's focus to their own experiences of learning. It was expected that an earlier discussion on two different learning experiences would help the children to open up more about their own learning experiences.

APPENDIX 3

WHAT aspect of learning	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
These things (the subject matter) are easy because they (the subject matter) <b>make sense</b>	•				•											
There are <b>so many</b> things (contents of the subject matter) to <b>remember</b> and <b>write</b>	•				•				•	•						
It's (learning) <b>fun</b> <ul style="list-style-type: none"> <li>• Enjoyable experience</li> <li>• <i>“Learning how to play games”</i></li> <li>• <i>“Learning how to play football”</i></li> </ul>	•	•	•	•	•	•	•			•		•			•	
<b>Able</b> to do the questions given by the teacher <ul style="list-style-type: none"> <li>• Able to <b>answer questions</b> verbally</li> <li>• Not having to ask teachers for help</li> </ul>	•	•	•	•	•			•	•			•			•	•
To <b>remember</b> better <b>for the exam</b> <ul style="list-style-type: none"> <li>• Remembering for the exam</li> </ul>	•				•	•		•	•	•	•	•	•	•	•	•
Learning is something <b>important</b> for our <b>future</b> <ul style="list-style-type: none"> <li>• To achieve ambition</li> </ul>	•					•										
Learn to <b>gain knowledge</b> <ul style="list-style-type: none"> <li>• To become <b>knowledgeable</b></li> <li>• To gain more knowledge</li> <li>• To become clever</li> <li>• <i>“Make us smarter”</i></li> </ul>	•	•	•	•		•				•		•	•	•	•	•
Learning is a <b>good practice</b>		•														
Doing questions is <b>not boring</b> <ul style="list-style-type: none"> <li>• Written exercise</li> </ul>		•						•								

APPENDIX 4

HOW aspect of learning	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Pay attention, concentrate and focus on what my teacher says	•	•						•	•		•		•		•	
It is <b>important</b> to concentrate and pay attention <ul style="list-style-type: none"> <li>• “I don’t want to miss out the important ones”</li> </ul>	•		•			•		•	•		•					
<b>Watch</b> carefully (what the teacher is teaching)	•			•	•	•										
<b>Homework</b>	•			•		•							•	•		•
<b>Read</b> <ul style="list-style-type: none"> <li>• Story books</li> <li>• Texts</li> <li>• Notes</li> </ul>	•	•		•		•	•	•	•	•	•	•	•	•	•	•
<b>Read textbooks to prepare</b> for the next lesson	•		•					•						•	•	
Teachers give <b>more explanations</b> until we can understand and do our work <ul style="list-style-type: none"> <li>• Using pictures and notes</li> </ul>	•	•	•		•	•	•	•	•				•		•	•
Learn harder <ul style="list-style-type: none"> <li>• By paying attention</li> <li>• “Focus and concentrate on what my teacher is saying”</li> </ul>	•															
Do what the teacher asks us to do (in class) <ul style="list-style-type: none"> <li>• “Make us learn what the topics are all about”</li> <li>• Practice with question papers</li> <li>• Questions on what has been learnt that day</li> </ul>	•	•				•	•		•	•					•	•