

Initial developments in Lesson Study in Brunei Darussalam

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The idea of establishing a university of Brunei Darussalam was first raised during a comprehensive review of the country's higher education facilities in 1976. Subsequent discussions led to the appointment of a steering committee which, with the assistance of the British Council, proceeded to engage a group of experts to study and advise on the matter.

On 23 April 1985 came an announcement from His Majesty Sultan Haji Hassanal Bolkiah Mu'izzaddin Waddaulah, Sultan and Yang Di-Pertuan of Negara Brunei Darussalam that, in the interest of national development, Brunei Darussalam was to have its own university and that the necessary arrangements should be made with minimum delay.

In a remarkably short period of time a temporary campus was set up in a renovated building complex close to the Institute of Education, four and a half kilometres from the city centre.

With the help of several overseas universities and under the supervision of a Ministry of Education Committee on the Establishment of the University, the first degree programmes and courses were devised.

Academic staff were recruited in the United Kingdom, Malaysia and Singapore.

On 28 October 1985, just six months after His Majesty's announcement, Universiti Brunei Darussalam opened its doors to the first intake of 176 students. In 1988, the Sultan Hassanal Bolkiah Institute of Education was integrated with the University.

Today the University accommodates more than 300 academic staff and 2,800 students in seven faculties, namely Arts & Social Sciences; Business, Economics & Policy Studies; Sultan Haji Omar Ali Saifuddin Institute of Islamic Studies; Science; Sultan Hassanal Bolkiah Institute of Education; Academy of Brunei Studies; and Institute of Medicine

Context

There are some 30 government secondary schools and approximately 100 primary schools in Brunei.

Interest in Lesson Study at both Ministry and school levels has been sparked by the Institute's seminar series on education (SANSWE), and by involvement of a group of maths educators with the APEC HRD 03/2006 Project.

School Principals have shown interest in the potential of Lesson Study for teachers' professional development, and are keen for teachers to collaborate in-house on improvements in teaching and learning, in contrast with other modes of INSET delivery.

The Institute of Education has (2007/8) a small scale funded research project looking at the effectiveness of the Learning Study variant of Lesson Study in science, mathematics, English and economics and business education involving up to eight secondary schools and four researcher/advisers from the Institute.

An attempt to design initial and in-service teacher education in the area of business education based on the principles of Learning Study is in progress and has been reported (ERAS, 2006; Teacher Development, under review).

A part time doctoral research student at UBD is studying the effectiveness of lesson/learning study in developing teachers' views of teaching.

Areas for discussion

- The challenge and success of basing lesson development on an explicit theory of learning.
- Review of the teacher centred/ student centred dichotomy which has gained currency in Brunei, and can lead to an emphasis on process over content, both in school and in Faculty. Learning Study introduces an object of learning centred approach (Runesson, 2005) which does not prescribe any particular method.
- The preparedness in terms of subject knowledge of the teachers for engagement with Learning Study. Each Learning Study is a small scale research project.
- The extent to which teachers are willing and feel able to be involved given their perceptions of their workload and the time involved in collaboration on lesson study
- The degree of autonomy felt by teachers to initiate change.
- The extent to which the curriculum, assessment and accountability processes support lesson/learning study. The Ministry is keen to move on from mechanistic approaches which have in the past led to transmission and rote learning and is engaged in reform of the system.

A Brunei lesson study – the problem

Here is the Trial Balance of Jo-Jo Retailing, for the year ending 30th April 1995:

On the last day of the financial year the following adjustments are needed:

- Stock held at 30th April 1995 is cost at \$30 000.
- The firm is owed \$500 in Commission.
- Rent has been received in advance worth \$200.
- The firm has paid \$1 000 for Advertising for next financial year.
- There are unpaid Administrative Expenses of \$800.
- The firm maintains a Provision for Doubtful Debts equal to 5% of Debtors.
- Equipment needs to be Depreciated. The firm charges 10% p.a. Straight Line and estimates scrap value to be \$20 000. Vehicles need Depreciating at 20% using the Reducing Balance method.

REQUIRED:

Provide an Income Statement for Jo-Jo Retailing for the year ending 30th April 1995, and a Balance Sheet as at that date.

A Brunei lesson study – the test

Here are some extracts from this year's Trail Balance for Company A:

	\$	\$
Equipment	120,000	
Accumulated Depreciation: Equipment		60,000

On the last day of the current financial year the following adjustment is needed:

Equipment needs to be depreciated. The firm charges 10% pa using the Straight Line Method (original balance method) and estimates scrap value to be \$20,000.

Question 1: How old is the company by the last day of the current financial year? (All workings should be shown and you are allowed to use a calculator)

Here are some extracts from this year's Trail Balance for Company B:

	\$	\$
Vehicles	80,000	
Accumulated Depreciation: Equipment		47,232

On the last day of the current financial year the following adjustment is needed:

Vehicles need to be depreciated at 20% using the Reducing Balance Method.

Question 2: How old is the company by the last day of the current financial year? (All workings should be shown and you are allowed to use a calculator)

A Brunei lesson study – the lesson

10% applied to original balance

10% applied to reducing balance

	Depreciation charge	Value of asset	Accumulated depreciation	Depreciation Charge	Value of asset	Accumulated depreciation
At end year 1	10,000	90,000	10,000	10,000	90,000	10,000
At end Year 2	10,000	80,000	20,000	9,000	81,000	19,000
At end year 3	10,000	70,000	30,000	8,100	72,900	27,100
ETC	ETC	ETC	ETC	ETC	ETC	ETC

Original asset value 100,000. Life of asset estimated to be 10 years after which worth nothing.

A Brunei lesson study – the lesson

The teacher could show this to the students by demonstrating it on the board.

Then this can be repeated with a scrap value of 10,000. **This will affect the 'original balance method'** (this may be a more meaningful term for it, and can introduce textbook name later) **but not the reducing balance method.**

This is what the teacher needs to demonstrate to class. The important thing here is that everything is invariant except the method. This should allow the students to SEE what is the effect of varying the method.

Results can be graphed.

Key questions for the students to be asked to consider are:

- Which method is best?
- For whom and under what circumstances?

They should see that the annual depreciation charge is lower with reducing balance method (see above). And they could be asked to think about whether this is a good thing or not.

A Brunei lesson study – the evaluation

Pre-test result (H's block 2 students), n=25

Question	No. correct	% correct	No. wrong	% wrong
1 (straight line)	5/25	20	20/25	80
2 (reducing balance)	9/25	36	16/25	64

Post-test result (H's block 2 students), n=22

Question	No. correct	% correct	No. wrong	% wrong
1 (straight line)	16/22	72.7	6	27.3
2 (reducing balance)	18/22	81.8	4	18.2

A Brunei lesson study – the evaluation

We watched a video recording of the lesson, paused at various parts to elicit responses from the teachers. J said his normal practice of teaching a lesson on depreciation was first to provide definitions about what was depreciation and net book value, followed by separate lessons on straight line and reducing balance methods. What he saw from the lesson was that a different approach was used. He saw that the two methods were presented side by side by the teacher and this afforded an experience of variation for the students. Despite this there was some initial scepticism about the effectiveness of the lesson. J said the lesson had been taught before, so the students might have remembered ... It was explained that the lesson was re-taught because the two methods presented some difficulties according to N. Furthermore, a pre-test to check students' understandings of the two methods revealed that the students had indeed learning difficulties with the two methods (see pre-test results). J also said the lesson did not contain any introduction on definitions and so forth. He asked if it was possible to go straight into the lesson without such introduction.

H said he had deliberately asked his lower-ability class to sit for the lesson and the result from this class was nothing short of a dramatic improvement. H said the students might have done well here because the problem involved quantitative skills but would be keen to know if the same principle applied in this lesson could be applied to a lesson which is more qualitative in nature.