



## CONTENTS

### **Spoon-Feeding**

*Professor K.P. Mohan*

*The Concept of Spoon-Feeding  
Independent Learning and Independent Thinking  
Making Pedagogically Sound Choices  
Lecture Notes, Lectures, Exams, and Spoon-Feeding*

### **Spoon-Feeding in 'Do' Disciplines**

*Associate Professor W.A.M. Alwis*

*Key Aspects  
How to Do and Why?—The Difference  
Some Observations  
How Do We Know a Particular Act is an Instance of Spoon-Feeding?*

### **Spoon-Feeding in Higher Education**

*Associate Professor Rethy K. Chhem*

*Why is Spoon-Feeding So Popular?  
What are the Limitations of Spoon-Feeding?  
Why is It So Difficult to Implement Active Learning Methods in Higher Education?  
What are the Alternatives to Spoon-Feeding?*

### **Avoiding Spoon-Feeding: The Creative Teaching of Geography**

*Assistant Professor T.C. Chang*

### **Issues Discussed at the Q-&-A Session**

*(at the 30 October 1999 CDTL Workshop)*

- I. Arguments for Spoon Feeding*
- II. Arguments against Spoon-Feeding*
- III. Alternatives to Spoon-Feeding*
- IV. Responsibility to Introduce Change*



Much debate has generated over the issue of **Spoon-Feeding**. What is spoon-feeding? Are we spoon-feeding our students? Do they expect us to do so? Is spoon-feeding necessarily harmful? Can we break away from it? These are some of the issues discussed at the CDTL workshop on spoon-feeding held on 30 October 1999. In this issue of **CDTL Brief**, we present several viewpoints on this topic and the concerns raised at the workshop.

## Spoon-Feeding

Professor K.P. Mohanan  
Department of English Language & Literature/  
Deputy Director, CDTL

### The Concept of Spoon-Feeding

What is spoon-feeding? It might be useful to begin with dictionary definitions of spoon-feeding as the first step towards an answer.

- Spoon-fed:
1. Fed with a spoon.
  2. Treated with excessive solicitude; pampered.
  3. Given no opportunity to act or think for oneself: *Having always been spoon-fed, she couldn't meet the challenge of college.*

Spoon-feed: To cause to be spoon-fed.

(Webster's Encyclopedic Dictionary of the English Language)

Spoon-feed: If you spoon-feed someone, you do everything for them or tell them everything that they need to know, thus preventing them from having to think or act for themselves. e.g. *There is a tendency to spoon-feed your pupils when you're teaching because it is quicker and easier.*

(Collins Cobuild English Language Dictionary)

In the literal sense of the term, 'spoon-feeding' refers to performing a physical action for children that they can do on their own, or which they are ready to learn to do with some effort. The result of spoon-feeding in the context of eating is the inhibition of the development of the capacity to feed oneself. Translating this into the pedagogical domain, we may say that if students are capable of doing X, or are at a stage that they can learn to do X with some struggle on their part and help from the teacher, the teacher's doing X for the learner constitutes spoon-feeding. The result of spoon-feeding in the academic context is the inhibition of the development of the capacity for independent thinking and learning. Hence, spoon-feeding in pedagogy would be *the activity of preventing possible mental development by doing for the learner what the learner could have done for himself/herself*. To appreciate this concept of spoon-feeding, we need to understand what spoon-feeding impedes, namely, the capacity to learn independently and the capacity to think independently.

### Independent Learning and Independent Thinking

What do we mean by 'independent learning'? Suppose we say that *dependent learning* is characterised by the need to depend upon educational institutions and teachers to learn something, it would then follow that *independent learning* is characterised by the capacity to learn without depending upon educational institutions and teachers.

As an independent adult learner, if I wish to understand the basic tenets of Marxism or find out what Foucault's pendulum is, I do not need to go to a teacher or attend a course in sociology/astronomy: I can find things out on my own by going to the library. If our students are independent learners, they should be able to do the same. If they are not independent learners, my responsibility as a teacher is to help them become independent learners, rather than to do it for them.

Likewise, we may say that *dependent thinking* is characterised by the inability to arrive at or entertain opinions/views distinct from those of one's community or authority, a tendency to follow peers or superiors in their beliefs, values, decisions, and practices, the inability to reason, and the inability to engage in critical thinking and judgement. *Independent thinking*, in contrast, minimally requires the ability to form opinions/views independently of the opinions/views that one is exposed to. At a higher level, it also calls for the ability to (i) form rational opinions/views on one's own on the basis of available information, (ii) discover/perceive problems/questions, (iii) discover/construct solutions/answers to the problems/questions, (iv) critically evaluate the solutions/answers, (v) make reasonable inferences, and (vi) arrive at rational decisions. These are essentially the abilities that enter into independent research.

### Making Pedagogically Sound Choices

It would follow from the above discussion that the teacher's responsibility is to provide the environment (questions, tasks, challenges, etc.) that triggers learning, and hold back from providing answers, solutions, or information as much as possible, intervening in the process of learning only when it is absolutely essential. That is to say, if the teacher's non-intervention would impede learning, then he/she should intervene, otherwise, he/she should not intervene.

To illustrate, consider the following options that a teacher is faced with in the course of teaching:

1. a) summarising or transmitting to learners something that is available in print, vs.  
b) resisting the temptation to tell them, getting them to read it on their own, if necessary with questions to guide their reading, and helping them with their difficulties only after they have put in serious effort.
2. a) explaining a difficult concept to the learners, vs.  
b) resisting the temptation to explain, and getting them to struggle with it and understand it on their own, if necessary by designing preparatory exercises that facilitate the understanding.
3. a) providing an answer or solution to a question or problem that learners raise, vs.  
b) resisting the temptation to answer the question, and getting them to arrive at an answer on their own, if necessary by guiding them to intermediate questions/problems.
4. a) getting learners to acquire the knowledge by reading or listening, vs.  
b) getting them to discover or construct the knowledge on their own (Inquiry Based Learning).
5. a) transmitting your critical assessment of an idea/hypothesis/theory/claim, vs.  
b) resisting the temptation, helping them to formulate their own critical assessment, and then comparing your assessment with theirs.

Faced with the choice between (a) and (b), a teacher who systematically opts for (a) does for the learners what they should do on their own, potentially impeding their growth as independent learners and independent thinkers. Hence, given the definition that spoon-feeding is *the activity of preventing potential mental development by doing for the learner what the learner could have done for himself/herself*, such a teacher must be said to engage in spoon-feeding.

### Lecture Notes, Lectures, Exams, and Spoon-Feeding

Spoon-feeding is often equated with the use of extensive class notes for students. Contrary to popular belief, however, extensive lecture notes can serve an important educational function: by making the knowledge content available through lecture notes, the teacher can use the lecture time for fruitful dialogue with students rather than for the transmission of information. Detailed lecture notes can also spare students from the wasteful tedium of writing down everything that the teacher says. This would free the time to think through the material covered in class.

Suppose we tape all our lectures, get them transcribed, and distribute the printed lectures to students. Such printed lecture notes could serve the same function as a textbook. If so, would the use of notes be a form of spoon-feeding? *No*.

Suppose the lectures in a course are detailed answers to possible examination questions. Would the lectures be a form of spoon-feeding? *Yes*.

Hence, we must conclude that both lectures and notes can be instruments of spoon-feeding. Conversely, neither lectures nor notes are necessary indications of spoon-feeding. The distinction between spoon-feeding and teaching does not lie in whether the knowledge content is presented in the spoken form or the written form. Rather, it lies in the kind of learning

promoted by the teacher's activity.

Given students who are capable of

- reading and understanding the material in a textbook or an article,
- solving a problem,
- arriving at a conclusion or discovering an answer,
- critically evaluating a theory or proposal,

or can learn to do the above with some guidance from the teacher, a teacher who summarises the chapter/article, hands down the solution/conclusion/answer, and/or provides a ready-made critical evaluation, engages in spoon-feeding, whether this is done through lectures or class notes. In other words, a course in which students can get a 'B' by reproducing or summarising what the teacher has said in the lectures or class notes is a spoon-feeding course. ■

# Spoon-Feeding in 'Do' Disciplines

*Associate Professor W.A.M. Alwis  
Department of Civil Engineering*

'Do' disciplines are those in which the main interest is in succeeding in and/or completing physical tasks. Examples are engineering, medicine and dentistry. Other activities such as driving motor vehicles, playing musical instruments and operating machines also fall into this category.

## Key Aspects

The following four aspects of personal achievement are associated with 'do' disciplines:

1. Being able to do (e.g. Peter is able to design a bridge.)
2. Having the experience of doing (e.g. Paul has designed a bridge.)
3. Knowing why it is done the way it is (e.g. Harry knows why bridges are designed the way they are.)
4. Understanding the underlying principles (e.g. Thomas understands the principles of bridge design.)

In 'do' disciplines, being able to do matters a lot. If you visit a dentist, he being able to do matters a lot. If the dentist knows only principles, it does not mean anything much. But actually there is a subtle difference between being able to do something, and having the experience of doing it. If somebody asks me: "Can you calculate the stresses in a chamber of an aircraft?" My answer is: "I can, I am able to do it." But that does not mean I have done it before.

In the 'do' disciplines, having the experience of doing it at

least once is important. That was the original idea of setting up lab experiments and so on. But somehow over the years, some academics have converted lab experiments to routines. They give students a nice sheet with some blanks. The students do not know what they are doing, but they fill in the blanks with numbers. They take down the numbers shown in the meters. Thereafter, they plot the graphs and hand in the report. It is then considered done, but I do not think they have got the experience of doing the actual thing, although the original idea was to give them the experience of having done it once at least.

The third level is knowing why something is done the way it is. There is a reason and theory behind everything. But this is not the same as understanding the underlying principles. Actually if you understand the underlying principles, you can devise another way to do the same thing; even a completely different one. So we hope that in the university, we can go to the fourth level because there is no institute of education higher than the university. We have to be responsible enough to provide the highest possible education.

## How to Do and Why?—The Difference

The following poem written over a century ago summarises some important issues about doing things, especially the difference between methods and principles:

Without ambition one starts nothing.  
Without work one finishes nothing.  
The prize will not be sent to you. You have to win it.

The man who knows how will always have a job.  
The man who also knows why will always be his boss.

As to methods there may be a million and then some,  
but principles are few.  
The man who grasps principles can successfully select  
his own methods.

The man who tries methods, ignoring principles, is  
sure to have trouble.

—Emerson (1803–1882)

### Some Observations

The following general observations are broadly valid at least in engineering disciplines:

- **Teachers believe that merely being able to show (1) is enough proof for (2), (3) and (4).** This is evident in examinations. We believe that if students are able to solve an exam question, they know why it is done in a particular way. This is a false premise.
- **How to do is taught in component form using neatly trimmed and packaged examples.** But in real life, things do not exist in nicely trimmed packages. Yet we believe that somehow, students will be able to put things together and handle other situations.
- **Detailed demonstrations using multitudes of examples are done to teach how to do.** Students end up being able to solve problems of the type that are demonstrated but fail to consider changes and differences in other problems and variations.
- **Teachers give multitudes of exercises to students to practise with. The teacher's way of doing them is later made known by posting solutions on notice boards or through the web.** Adopting the teachers' answers and format will lead to the next observation.
- **Students feel they 'can do' after such 'successful' teaching.**

- **Grades are awarded on the basis of the ability to do a set of familiar (predictable) neatly packaged problems.** It becomes almost a necessity because if you vary, either the students will complain, or your bosses will because the grades are too low.
- **However, snap-tests several months later reveal that the majority of students are not capable of solving even the classroom problems they did during that 'successful' teaching.**

This is the pattern of behaviour we have established, at least in Engineering.

Like parallel parking, you will be able to do things after being trained. So if the objective is training, it is justified that you give a routine to practise, practise, and practise. Otherwise, teachers should not set patterned situations through tutorials and examinations. If they do that, then they will create a situation that finally constitutes spoon-feeding.

Principles cannot be understood to a sufficient degree by carrying out a set of operations according to a fixed routine. (Therefore, the teacher should not set up situations that would motivate the student do such routine operations unless the objective is training.)

Principles can be understood by undertaking a task that offers a mental challenge. (There has to be a mental challenge—a struggle, as mentioned by Mohanan. Therefore, the teacher should do things that will motivate students to undertake mental challenges whenever the objective is a higher form of learning.)

Intellectual development is a result of mental challenges. Intellectual development must be at least one of the objectives of higher education at university level.

### How Do We Know a Particular Act is an Instance of Spoon-Feeding?

It is *not possible* to determine whether a case of spoon-feeding is occurring just by examining a single instance during a teaching process. There should be a *sequence* of happenings forming a *pattern* known to match one that can be considered as spoon-feeding. Take the case of a student who *has not been enabled/empowered* despite undergoing a teaching process and being successful at examinations—a *possible cause* is spoon-feeding. ■

Many educational situations can be defined as ‘spoon-feeding’ and it occurs most commonly in traditional lectures, small-group teaching sessions or seminars when the teacher deliberately provides the answers to students’ questions, etc. In short, ‘spoon-feeding’ is the situation where the teacher acts as a knowledge dispenser for passive students. The teaching here is centred on the teacher at the expense of the students’ learning process.

### Why is Spoon-Feeding So Popular?

The lecture is not the only learning situation where spoon-feeding occurs, but it is the most common situation. That is why the advantages and limitations of the lecture will be described and discussed in this article.

1. A lecture is short and needs little preparation, as the lecturer is the expert in the field in which he teaches. A ‘good’ lecture that has been prepared according to the traditional rules and delivered by a ‘good’ lecturer is still considered one of the best teaching methods.
2. Once a lecture is delivered, there is no need for lengthy preparation for the following academic year, except the need for some updates.
3. Lectures are economic and cost effective because one lecturer can deliver the course content to a large class, up to several hundreds of students
4. Students like the traditional lecture because there is no need for active effort. The only skills required are to be able to take notes, memorise the information to be regurgitated at the exam, and hopefully get the expected marks. Therefore, this process is also economic and cost effective for the students in terms of effort for information treatment.
5. In most teaching situations, including lectures and other spoon-feeding conditions, giving the answer to students’ questions is good for the teacher’s ego, as he is perceived as the one who knows. In addition, the process is quick and costs the teacher very little in terms of time and commitment.

# Spoon-Feeding in Higher Education

*Associate Professor Rethy K. Chhem  
Department of Diagnostic Radiology*

### What are the Limitations of Spoon-Feeding?

1. Spoon-feeding does not stimulate active participation from the students and only fosters rote learning.
2. Spoon-feeding does not promote independent learning and creativity.
3. Students lack initiative and problem-solving skills because they have not been trained to search for data by themselves.

### Why is It So Difficult to Implement Active Learning Methods in Higher Education?

Lecturers have learned to teach by observing their own teachers, generation after generation, without formal training in educational methods, thus teaching the way they were taught. Therefore, most students have been exposed to the same widespread technique of spoon-feeding, and have become totally dependent on the lecturer to deliver information. Because of this tradition, both students and lecturers would resist any major changes in this habit.

To overcome this, seminars and workshops are necessary to make students and lecturers aware of alternative methods of active teaching and their respective advantages and limitations.

### What are the Alternatives to Spoon-Feeding?

For the promoters of active learning, many teaching and learning methods can supplement traditional lectures or the tendency of lecturers to give the answers to students’ questions. The main paradigm shift here is to put responsibility for learning on the students themselves and to ask lecturers to train students to find the answers to their enquiries by themselves, using learning resources like the library, electronic databases, or the Internet. Therefore, the focus of teaching is to train students to assess their own educational needs, to search for relevant information, and to develop their own critical thinking and problem-solving skills.

Teaching methods that foster active learning, as opposed to spoon-feeding are many and include interactive lectures, small-group discussions, seminars, project work, problem-based learning, etc. ■

# Avoiding Spoon-Feeding: *The Creative Teaching of Geography*

*Assistant Professor T.C. Chang  
Department of Geography*

The discipline of Geography lends itself very ably to the training of student creativity and imagination. As a discipline which relies much on participant observation and fieldwork, students and researchers in Geography are always encouraged to hunt for answers of their own and collect data out in the 'field'. Although it is possible to spoon-feed students in any discipline, teaching and studying geography is very much about the art of independence where spoon-feeding can be avoided totally. Let me provide three examples of how a number of colleagues and myself in the Department have tried to veer away from spoon-feeding and focused instead on honing student creativity, observation skills, and fieldwork interpretation.

In one of our first-year modules that a number of colleagues teach, we bring the entire class of about 160 students down to the Singapore River/Raffles Place for a morning of fieldwork. The aim of this exercise is to explain to students the applicability of academic concepts to a real-life landscape, and to train them to observe the world in a more critical and engaged manner. Towards this end, a 'treasure hunt' exercise is given to the students (to be worked in groups of five) asking questions that they have to answer based on personal observations. One question, for example, asks them to interpret the meaning of a particular sculpture and how it adds to (or detracts from) the place identity of Raffles Place. Another asks them to propose an alternative development plan for Boat Quay. We stress to the students that there are no absolute right or wrong answers, and they should be creative in their interpretations and should back up their assertions with intelligent reasoning. Small prizes are given to the teams with the most creative answers at the end of the fieldwork.

A second way to avoid spoon-feeding is to give free rein to students working on their term essay and project. It is a common perception by many that for any prescribed question, there must be a stock answer. To rid this mindset, try asking students to devise their own essay and project topics. While most are initially uncomfortable to set the scope and conceptual focus of their own question (for fear of coming up with a poor question!), many ultimately rise to the

challenge to work on topics on their immediate and personal interest. I have come across passionate essays on pets, aromatherapy, Manchester United and the Internet! I tell my students these topics are perfectly acceptable and advise them to try to apply geographical concepts to what they have chosen. Students are thus inspired to be proactive and to take control of their research; and as 'experts' in their own mini research terrain, nobody expects to be spoon-fed when I provide them with feedback on how to improve their essay/project.

Learning Geography is fun through role-playing and scenario acting. As much of what we teach in Geography concerns land use planning and development constraints (particularly in tourism and urban studies), I have tried to conduct tutorials in which students learn through playacting. As a tutor, I am merely an onlooker as the students take the lead in playing out the roles of, for example, policy makers, tourists, and business organisations. By assuming different roles, I hope the students appreciate the difficulties inherent in tourism planning which often involve different factions. Learning-by-doing is appreciated far more by my students than being told in a pedantic fashion during tutorial the problems of tourism planning. Needless to say, however, devising tutorial topics that veer away from spoon-feeding requires some effort and thought on the part of the tutor, but seeing the students getting excited in tutorials (for once!) is certainly rewarding enough.

It is indeed possible to avoid spoon-feeding students in many different ways. To do so, students must be encouraged to be imaginative with their answers, to independently devise their own essay and project topics, and to creatively role-play in tutorial settings. This way, learning becomes a far more personal, interactive, and enriching endeavour; and students leave the university, hopefully, with acquired skills of observation and creative thinking, and a more pro-active approach towards life-long learning. ■

# *Issues Discussed at the Q-&-A Session*

## I. Arguments for Spoon-Feeding

- a) Spoon-feeding is not necessarily bad. In terms of skill acquisition, there is a need to go through the hard work and routine before one advances to a higher level.
- b) Students expect to be spoon-fed and our teaching evaluations depend on their perception. We also have to be concerned with keeping our jobs.
- c) There is a wide range of abilities among the students and we do not have a sufficiently comfortable student-teacher ratio for coaching them individually.
- d) The time given to complete each module is limited. We do not have enough time to try out alternative techniques.
- e) People just have to be spoon-fed. Even in executive management courses, 50–60-year-old senior level officials of private companies, vice-presidents, and chief accountants are waiting to be spoon-fed. So you cannot blame a third year student who has only one or two more classes to finish to expect it.

## II. Arguments against Spoon-Feeding

- a) If we define spoon-feeding as ‘providing help or information that would inhibit learning’, then spoon-feeding is bad. There is confusion between spoon-feeding and the giving of help or information. If certain information is crucial for the students to develop further, then giving that information is necessary.

Another issue is whether it is necessary to provide the basic information first and then at a later stage focus on the thinking ability. You can help learners construct a body of knowledge rather than tell it to them. So there is no basic knowledge that we have to give them first such that they can think or process things later. The entire acquisition of knowledge can be done through discovery or knowledge-construction. We should not assume that spoon-feeding addresses lower level learning and non-spoon-feeding techniques cover advanced things.

- b) The argument based on the variability of students’ ability is a problem for **ANY** mode of teaching. For instance in lecturing, we have to recognise that some students are extremely good and some extremely bad. So if we try to address the higher-level group, we lose the lower-level one; if we try to address the lower group, the higher group will get bored and disinterested. So we look at the mid-range, ignoring the extremes, and then give some special consideration outside the general scheme for the extremely poor ones and the extremely bright ones. But we have to address the general bulk of the students in the

middle, and that goes for alternative modes of teaching as well. So that is not an argument for spoon-feeding, but for the need to address the mid-range group.

- c) If we use active or interactive modes of teaching, it is true that the first few weeks are slow, but speed picks up incredibly fast. In certain courses, using these alternative modes of teaching, students are able to construct principles that they would not have even been able to understand as third year students if they were to be spoon-fed. So the speed is much faster, rather than slower.
- d) If teachers continue to practise spoon-feeding, it is very difficult for those who are trying to break away from it to succeed.

## III. Alternatives to Spoon-Feeding

- a) In 1999, the Faculty of Medicine introduced a new pedagogical method, Problem-Based Learning (PBL), which is a way of getting away from spoon-feeding. PBL is conducted in small groups: students have to discuss a given problem and what sort of basic knowledge they require to understand the problem or try to solve the problem, and they go off for a few days or a week and return with whatever knowledge they have gathered on their own to discuss it again. The students have responded well and the staff have told us that they actually had to restrain themselves from giving the answers. We have found this method very useful.

- b) Some universities in the U.S. do not assign any grades to students in their first year. They just go through the learning process, and cultivate a new thinking process. Serious examination grading starts only from the second year onwards. In this way, students go through the different and tough environment in university and get used to it first.
- c) It has to do with high and low challenges, and high and low support. If there is low challenge and low support, there is no learning; high challenge and low support, students give up. If you have low challenge and high support, then you have spoon-feeding; but high challenge and high support will lead to meaningful learning.

From the student's side, there are high and low participation, and high and low cognition. High participation and cognition will lead to meaningful learning. If you have high cognition, low support (i.e. you demand them to think a lot, but provide little support and guidance), students will not participate; they will give up. If you have low cognition and low participation, you have no learning. If you have high participation, and low cognition, it leads to rote learning. And rote learning and spoon-feeding are actually related.

Many of us still regard learning as acquisition of knowledge. So that is why we talk a lot about assessment and grades, because we think that if students can answer questions in a test, they have the necessary knowledge, and deserve an 'A'. But learning should be regarded as the construction of knowledge.

#### IV. Responsibility to Introduce Change

- a) Singaporean students who study abroad are able to change. Based on this evidence, we have the responsibility to implement necessary changes. Not all colleagues would do so because there is the teaching evaluation to consider. Students have their strategies; they want the easy way. However, we should not fall into their trap.
- b) If the students face the same level of challenge in all courses, they will change their mindsets. They can be good. I think it is because so many of our colleagues take the easy way out. In the first and second years, students should have gone through enough to snap out of the spoon-feeding system.
- c) We have to change our style of assessment. The motivation for students in Singapore is the exams. If questions are of the 'write a brief account of...' or 'give a brief description of...' type, students will all go for rote learning—why should they bother with other methods? But if the exam style changes, they will change. ■

*An online discussion was held after this workshop.  
Further views and comments on the topic can be channelled to CDTL.*



The Centre for Development of Teaching and Learning (CDTL) provides a wide range of services and facilities to support the teaching, learning and research programmes of the National University of Singapore.

These include teaching and learning support, research on educational development issues, as well as instructional design and development.

#### contributors

K.P.Mohanani, W.A.M. Alwis, Rethy K. Chhem, T.C. Chang, and participants of the CDTL workshop on *Spoon-Feeding* on 30 October 1999

#### advisor

Daphne Pan

#### editors

Christina Low  
Verena Tay

#### layout

Ma Lin Lin

© 2000 *CDTLBrief*

is published by the

Centre for Development of Teaching and Learning.

Reproduction in whole or in part of any material in this publication without the written permission of CDTL is expressly prohibited.

The views expressed or implied in *CDTLBrief* do not necessarily reflect the views of CDTL.

An [online version](#) is available at our web site.

Comments, suggestions and contributions should be addressed to:

The Editor, *CDTLBrief*  
Centre for Development of Teaching and Learning  
Central Library Annexe, Level 6  
National University of Singapore  
10 Kent Ridge Crescent  
Singapore 119260

Tel: (65) 874-4692

Fax: (65) 777-0342

Email: [cdtlowc@nus.edu.sg](mailto:cdtlowc@nus.edu.sg)

<http://www.cdtl.nus.edu.sg>