Table 13.7 (continued)

AT4: Learning log

Excellent A+ A A– 4.3 4.0 3.7	Good B+ B B– 3.3 3.0 2.7	Adequate C+ C C– 2.3 2.0 1.7	Marginal D 1.0	Failure 0.0
Strong evidence of developing an awareness of learning expectations and processes as well as the ability to reflect on learning progress	Evidence of developing an awareness of learning expectations and processes as well as the ability to reflect on learning progress	Some evidence of developing an awareness of learning expectations and processes as well as the ability to reflect on learning progress	Sufficient organization of their learning that marginally enables the student to progress without repeating the assignment	Little or no evidence of ability to organize the learning and overall understand-ing of what the class is all about

AT6: Final examination

Excellent A+ A A– 4.3 4.0 3.7	Good B+ B B– 3.3 3.0 2.7	Adequate C+ C C– 2.3 2.0 1.7	Marginal D 1.0	Failure 0.0
Strong evidence of original thinking Good organization, capacity to analyse and synthesize Superior grasp of subject matter Evidence of extensive knowledge base	Evidence of grasp of subject, some evidence of critical capacity and analytic ability Reasonable understanding of issues Evidence of familiarity with literature	Student who is profiting from the university experience Understanding of the subject Ability to develop solutions to simple problems in the material	Sufficient familiarity with the subject matter to enable the student to progress without repeating the course	Little evidence of familiarity with the subject matter Weakness in critical and analytic skills Limited or irrelevant use of literature

Nursing

'Philosophy and Science of Nursing' is a one-semester core course of a two-year part-time master of nursing degree programme in the Department of Nursing Studies of the Li Ka Shing Faculty of Medicine at the University of Hong Kong. The students are practising nurses, 33 in number. The course was designed by Dr Agnes Tiwari of the Department of Nursing Studies.

Course aims

Although nursing is a practice discipline, it cannot solely rely on the accepted theories of practice. For nursing to evolve, it must continually expand its knowledge base, which should be disseminated and applied to practice. As the development of science entails the interpretation of phenomena and events, the context within which nursing science is located must be taken into account. Furthermore, the advancement of nursing science requires its practitioners to have the skills and inclination to reflect on the quality of one's thinking and to use one's critical thinking skills to engage in more thoughtful thinking and problem solving in work situations.

In this course, students will be able to develop and practice metacognitive self-correction (using one's own thinking to improve one's own thinking) while they interpret, analyse, explain and evaluate the philosophy and science of nursing within the western and Chinese context.

Intended learning outcomes (ILOs)

At the end of this module, students should be able to:

ILO1 *Explain* the nature of the philosophy of nursing and *relate* it to the western and Chinese philosophical context
ILO2 *Describe* and *reflect* on the development of nursing knowledge
ILO3 *Explain* the historical evolution of nursing science
ILO4 *Analyse* the metaparadigm of nursing in terms of nursing, health, client and environment
ILO5 *Reflect* on and *evaluate* the contemporary perspectives of nursing
ILO6 *Analyse* and *theorize* the interrelationships among nursing theory, research, practice and education

Teaching and learning activities (TLAs)

TLA1: Mini-lecture
A teacher-led mini-lecture precedes students' discussion activity. The purpose of the mini-lecture is to deliver key concepts and principles pertaining to the ensuing discussion.

TLA2: Small group discussion
Divided into small groups during the discussion activity, students develop and practise higher order cognitive skills as they *explain, analyse, reflect, evaluate* and *theorize* the philosophy and science underpinning nursing, with an aim to advance nursing practice and science from the past and present. Guidelines, framed in a series of critical thinking questions based on the ILOs of the particular class, are provided to help students conduct critical,

interactive and dialectical discussion. Through the process of discussion, not only do students acquire disciplined-based knowledge, they also practise the habit of using their own thinking to improve their own thinking (metacognitive self-correction), which is an important nursing skill as nurses must be able to form good judgment in their professional work based on their own critical thinking. The teachers act as facilitators during student-led discussion by promoting meaningful discussion but not providing answers or solutions. In addition, one of the teachers records the thought processes demonstrated by the students in a selected group using the Holistic Critical Thinking Scoring Rubric (HCTSR) (Facione and Facione 1994) as an assessment of the students' ability to think critically about an authentic issue.

TLA3: Teacher-led think-aloud

After the discussion, a teacher-led think-aloud is used to provide feedback on students' responses to the critical thinking questions in the group selected. The teacher talks through the thought processes as demonstrated by the students during their discussion based on the HCTSR measures. Given the concentrated effort of using the HCTSR in the measurement of critical thinking, only one group can be assessed in each discussion session. The other groups of students are encouraged to listen to the feedback and learn from others' experience.

Assessment tasks (ATs)

Assessment is entirely by portfolio. The student:

1 submits two items of work, each item of which may cover one or more (whole or part) of the ILOs and is limited to 2000–2500 words
2 justifies the selection of each of the items in relation to the ILOs
3 ensures that the two portfolio items jointly cover *all five* of the ILOs specified for this module.

Students are given examples of items that may be submitted but are encouraged to go beyond the list. Examples include: an action plan, book or article review, a case study, a concept map, critical incidents, learning diaries, letter-to-a-friend, reflective diary, reflective report of a group discussion and the like.

Grading criteria

The criteria used to assess the quality of students' portfolio items are given in Table 13.8. Each item is graded holistically, but as the university requires a numerical grade, the grade for each item is converted to a percentage, as in Table 13.8, and the average of the two computed – which is then converted back to a letter grade.

Table 13.8 Holistic grading for the assessment portfolio in nursing

Grade	Description*t*	Understanding demonstrated	Evidence provided (examples)
A ≥ 70	Excellent	Understanding at an extended abstract level	Theorize about a topic Generalize to new applications Reflect on experience
B 60–69	Good	Understanding at a relational and application level	Apply theory to practice Recognize good and bad applications
C 53–59	Fair	Understanding at a multistructural declarative level	Describe nursing knowledge Explain nursing philosophy Comprehend selected nursing theories
D 50–52	Pass	Understanding at the lowest nominal level	Name the concepts or theories Focus on one conceptual issue
F ≤ 49	Fail	Fail to achieve the stated learning objectives	Miss key issues Demonstrate erroneous understanding

Comments and conclusions

The examples in this chapter illustrate possible ways of implementing constructively aligned teaching, learning and assessment under differing conditions of class size, level of teaching, disciplinary areas, various contextual conditions such as faculty regulations as to assessment and personal philosophy of the teacher. Class sizes ranged from large (over 200 students), medium (70–80 students) to small (around 30 students); mode from full-time to part-time and levels from first-year undergraduate to postgraduate. Most courses were conceived in a qualitative framework for assessment, others in a quantitative; some assessed the ILO, others the assessment task.

What all examples have in common is that the TLAs and ATs were aligned to the clearly stated ILOs on the basis of the learning verbs in each ILO.

Intended learning outcomes

All the course ILOs are derived from the course aims and are articulated in a way that identifies what students are intended to achieve through attending the course. Verbs such as *identify*, *describe*, *explain*, *analyse*, *evaluate*, *apply*, *design*, *reflect* and *theorize* are used to indicate the levels of understanding or performance students are expected to achieve with respect to the content areas. These ILOs include both declarative and functioning knowledge, ranging

from multistructural to extended abstract in terms of their SOLO levels. In several courses, relative importance of the ILOs is reflected in the amount of teaching and learning support in the TLAs and by the weighting of the assessment tasks in deriving the final grade.

Most of these courses also include the more generic ILOs on team work and communication to address appropriate graduate attributes.

Teaching and learning activities

Several different situations were used as contexts for TLAs:

1 *Large classes of hundreds of students in traditional lecture theatres.* Examples from accounting, engineering and information systems show that even this unpromising situation can be made interactive by engaging students in student-centred learning activities such as peer discussion and learning, role play, developing concept maps, using PDA for Q&A and one-minute notes and working on work-along exercises.
2 *Small group situations.* TLAs such as small group discussions on case study and problem solving, working on tutorial exercises, while role play and think-aloud modelling were used in accounting, information systems, management sciences and nursing.
3 *Laboratory.* The laboratory context, supporting discipline-specific learning activities for functioning knowledge ILOs were used in engineering and information systems.
4 *Individual and group projects.* Individual projects were used as TLAs in engineering and group projects in information systems: in both cases, the TLA became the assessment task.
5 *Outside the classroom.* Accounting, information systems and management sciences all required students to engage in TLAs outside the classroom such as peer teaching, helpdesk, tutor consultation, individual work with PDAs, peer tutoring and field trips.
6 *Peer-assessment*, authentic to much professional practice, is used formatively as a TLA in veterinary science.

Assessment tasks

A variety of assessment tasks are used. Where departments had regulations requiring examinations, the latter were used strategically, as in point 1:

1 *Written tests and examinations.* These are used in many of these courses, but mainly to assess declarative knowledge as in such verbs as 'identify', 'describe', 'explain' and 'evaluate'. The danger, mostly avoided here, is that where regulations stipulate that x% of the final grade must be by examination, the functioning knowledge ILOs might be under-assessed.