



SPED825

Effective Instruction in Numeracy

S1 External 2016

Institute of Early Childhood

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	2
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	8
<u>Delivery and Resources</u>	20
<u>Unit Schedule</u>	23
<u>Policies and Procedures</u>	26
<u>Graduate Capabilities</u>	29
<u>Required Unit Materials and readings</u>	33
<u>Unit Web Page</u>	33
<u>Where Do I Start</u>	34
<u>Changes since First Published</u>	35

Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

General Information

Unit convenor and teaching staff

Unit Convenor

Toni Hopper

toni.hopper@mq.edu.au

Contact via Through dialogue on home page

X5A Room 208

Thursdays by appointment.

Credit points

4

Prerequisites

Admission to GradCertLearnDiffSuppTeach or GradDipSpecEd or MSpecEd

Corequisites

SPED821

Co-badged status

Unit description

This unit focuses on providing students with the information and skills necessary to guide their instruction of students at risk of failure in the area of numeracy. It addresses current research-based theoretical, conceptual and pedagogical aspects of numeracy.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual

Describe and apply a range of strategies relevant to the numeracy skills of individuals.

Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.

Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of

numeracy skills in individuals.

Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

General Assessment Information

Rational for Modes of Assessment

Online participation – participation in on-line discussion assists students to develop an understanding of each Topic, provides an opportunity for self and peer assessment and provides a means of regular feedback on academic progress.

Assignments are designed to enable you to reflect more deeply on a particular problem or scenario and to write a considered response.

Problem Solving Exercises are designed to assess understanding, problem solving and application of concepts, principles and strategies covered in the unit. The Problem Solving Exercises may address skills such as assessment, writing objectives and selecting, applying and justifying intervention and assessment strategies.

Assessment Weighting

There are several components of the assessment in this unit. All components must be completed. **You must get an overall pass in the assignment and two problem solving exercises.**

Students who do not achieve an overall pass for the Problem Solving Exercises and the Assignment will receive an SNG no greater than 45.

Marking Criteria and Performance Descriptors for Problem Solving Exercises and Assignment

In general, markers will be looking for the following qualities in your responses to the questions and scenarios in problem solving exercises and assignments:

- Concise address of the critical points in the scenarios provided.
- Appropriate critical analysis and justification where needed.
- Integration of information from relevant content in the unit.
- Quality of critical analysis
- Evidence of generalisation of the concepts and principles of numeracy instruction to new examples.
- Evidence of a deep understanding of the range of factors which affect student learning
- Evidence of a deep understanding of the principles underpinning explicit instruction and related assessment, intervention and monitoring.

You are encouraged to evaluate your work against these criteria.

Performance Descriptors

High Distinction

There is *pervasive* address of critical points in all responses and a demonstration of deep understanding of all key principles. There are appropriate and concise justifications, descriptions or analyses integrating relevant information. There is no evidence of consequential gaps in understanding of basic principles and a clear ability to generalise concepts and principles to the most difficult examples.

Distinction

There is *extensive* address of the critical points in all responses and a demonstration of deep understanding of all key principles. There are appropriate and concise justifications or analyses integrating relevant information. There is no evidence of consequential gaps in understanding of basic principles although students may have difficulty in applying some concepts and principles to the most difficult examples.

Credit

There is *strong* address of the critical points in the vast majority of responses and a deep understanding of the majority of key principles. There are appropriate and concise justifications, descriptions or analyses integrating relevant information. There may be a small number of consequential gaps in understanding of basic principles. Students may have difficulty in applying some concepts and principles to a limited number of examples.

Pass

There is *solid* address of the critical points in the majority of responses and a demonstration of deep understanding of most key principles. There are appropriate and concise justifications, descriptions and analysis integrating relevant information. Students may have difficulty in applying some concepts and principles to some examples.

Fail

There is *poor* address of the critical points in the majority of responses. There is little evidence of deep understanding of principles. Justifications, descriptions and analyses would often be incomplete and/or unclear. Students demonstrate a poor understanding of the majority of concepts and principles and are only able to apply these to a minority of examples.

Resubmission

Students are required to gain an overall pass on the unit, but do not have to pass all assessment components. If you perform poorly on one component, you may compensate for this with an improved performance in the other component(s). You must, however, gain an overall pass on the two problem solving exercises and the assignment.

Resubmission of assessments and assignments is not permitted and extensions for assignments and problem solving exercises.

Disruption to Studies and Extensions for Assignments

and Problem Solving Exercises

In extenuating circumstances, students may apply to the unit coordinator for an extension to the assignment due date or a later date for completion of a Problem Solving exercise. Reasons for the extension need to be documented through the disruption to studies process accessible through ask@mq.edu.au and supported (e.g., Professional Authority Form in the case of illness).

Extension will only be granted in receipt of the completed form submitted through askMQ, plus documentation.

Disruptions due to work commitments require a statutory declaration from a work supervisor (eg. School Principal) stating that the work commitment was not known at the time of enrolment.

University Disruptions to Studies Policy and Procedures

You should read these documents and follow the policy and procedures.

Disruption to studies policy: http://www.mq.edu.au/policy/docs/disruption_studies/policy.html

Disruption to studies procedures: http://www.mq.edu.au/policy/docs/disruption_studies/procedure.html

Disruption to studies supporting evidence schedule: http://www.mq.edu.au/policy/docs/disruption_studies/schedule_evidence.html

Disruption to studies outcome schedule: http://www.mq.edu.au/policy/docs/disruption_studies/schedule_outcomes.html

Appeals

Appeals against grades for individual assessment components

If any student has concern about the marking of an assessment, they must:

1. Consult the member of staff who marked the work.
2. If there is no satisfactory resolution, an appeal should be made in writing to the unit convenor within **one week** of the marked assessment being returned or of results being made available. The student should explicitly state the basis of the appeal.

The unit convenor will review the marking and may, at their discretion, ask for a re-marking by a second marker. If re-marking by a second marker is judged appropriate, the final mark will normally be the average of the two marks awarded for the assessment task. Students should note that the revised mark for the task may be higher, the same, or lower than the original mark.

Please note that it is MUSEC policy to double mark all failing assessments.

The decision of the unit convenor is final.

Appeals against final unit grades

Students should refer to the Grade Appeal Policy at <http://www.mq.edu.au/policy/docs/>

gradeappeal/policy.html and the Grade Appeal Procedures at <http://www.mq.edu.au/policy/docs/gradeappeal/procedure.html>

Grade Appeals must be submitted within 20 days of the release of the unit results.

Grade Appeals are submitted through ask.mq.edu.au

Academic Honesty and Plagiarism

You must read the University's practices and procedures on Academic Honesty.

These are on the web at: http://www.mq.edu.au/policy/docs/academic_honesty/policy.html

The policies and procedures explain what academic honesty and plagiarism are, how to avoid plagiarism, the procedures that will be taken in cases of suspected plagiarism, and the penalties if you are found guilty. Penalties may include a deduction of marks, failure in the unit, and/or referral to the University Discipline Committee. Details of possible penalties are at http://www.mq.edu.au/policy/docs/academic_honesty/schedule_penalties.html

Other important points:

- Close paraphrasing of another persons' writing is considered to be plagiarism. You must express ideas using your own words.
- Claim of ignorance of the University policy on plagiarism is NOT a defence within MUSEC. If you do not understand the preceding information, please seek advice from a member of the academic staff.

University Assessment Policies

The University Assessment Policy, Code of Practice and Procedures are available at

<http://www.mq.edu.au/policy/docs/assessment/policy.html>

http://www.mq.edu.au/policy/docs/assessment/policy_code_of_practice.html

<http://www.mq.edu.au/policy/docs/assessment/procedure.html>

Standardised Transcript Marks

Your overall unit result will be assigned a standardised numerical grade (SNG) on your University transcript. High Distinction grades are assigned a mark between 85 and 100, Distinction grades between 75 and 84, Credit grades between 65 and 74, Pass grades between 50 and 64, Pass Conceded grades between 45 and 49 and Fail grades below 45. For further information, see the Grading Policy.

Grade Descriptors

The following generic grade descriptors provide university-wide standards for awarding final grades.

High Distinction: Provides consistent evidence of deep and critical understanding in relation to the learning outcomes. There is substantial originality and insight in identifying, generating and communicating competing arguments, perspectives or problem solving approaches; critical

evaluation of problems, their solutions and their implications; creativity in application as appropriate to the discipline.

Distinction: Provides evidence of integration and evaluation of critical ideas, principles and theories, distinctive insight and ability in applying relevant skills and concepts in relation to learning outcomes. There is demonstration of frequent originality in defining and analysing issues or problems and providing solutions; and the use of means of communication appropriate to the discipline and the audience.

Credit: Provides evidence of learning that goes beyond replication of content knowledge or skills relevant to the learning outcomes. There is demonstration of substantial understanding of fundamental concepts in the field of study and the ability to apply these concepts in a variety of contexts; convincing argumentation with appropriate coherent justification; communication of ideas fluently and clearly in terms of the conventions of the discipline.

Pass: Provides sufficient evidence of the achievement of learning outcomes. There is demonstration of understanding and application of fundamental concepts of the field of study; routine argumentation with acceptable justification; communication of information and ideas adequately in terms of the conventions of the discipline. The learning attainment is considered satisfactory or adequate or competent or capable in relation to the specified outcomes.

Fail: Does not provide evidence of attainment of learning outcomes. There is missing or partial or superficial or faulty understanding and application of the fundamental concepts in the field of study; missing, undeveloped, inappropriate or confusing argumentation; incomplete, confusing or lacking communication of ideas in ways that give little attention to the conventions of the discipline.

Fail Grades

Entry into units in the postgraduate coursework program requires a clear pass (i.e., a final unit grade of at least “C” or “P”) in all previously completed SPED units. That is, you will not be granted automatic entry into units if you have failures in previously attempted SPED prefixed units. If you have failing grades on our record (1) you may be allowed to continue at the discretion of the Director of MUSEC (or nominee) with a special approval (waiver), or, (2) You may be required to reattempt the relevant units until a clear pass is obtained.

Students with fail grades **MUST** seek academic advice before attempting to re-enrol.

Satisfactory Progress

Students are expected to maintain satisfactory progress in a course/program of study. Normally, students will be asked to **show cause** why their candidature should not be terminated if they fail any unit twice. Further, students may be asked to show cause if they receive more than two conceded passes and/or failures in a course/program of study.

Assessment Tasks

Name	Weighting	Due
<u>On line Participation</u>	10%	14th June 2016
<u>ASSIGNMENT</u>	15%	28th April 2016
<u>Problem Solving Exercise 1</u>	35%	7th April 2016
<u>Problem Solving Exercise 2</u>	40%	16th June 2016

On line Participation

Due: **14th June 2016**

Weighting: **10%**

What does online participation involve?

Online participation involves making posts on the Topic Discussion Forums of the unit website. Once a post is made in a Topic Discussion Forum, anybody in the unit can read or respond to it. Staff will post discussion questions periodically or you may ask your own questions, give answers or offer comment. Only posts to Topic Forums will be counted.

Online participation allows you to give feedback and receive feedback from other students and staff, to explore issues in discussion with other students and staff and to practise required skill competencies.

When can I contribute?

Topic	Closing Date
Module 1	Monday 14th March
Module 2	Monday 21st March
Module 3	Monday 28th March
Module 4	Monday 23rd May
Module 5	Sunday 14th June

You may contribute up until Sunday 7th June.

How much do I have to contribute

Each student is expected to make a minimum of ten (10) contributions to the topic discussions over the course of the semester. You must post in each of the Modules. Instructions on how to compile and submit posts (in the same way you submit assignments) will be provided on the iLearn website. **If you fail to submit compiled posts by the due date (14th June, 2016, you will be subject to 5% penalty of the total mark per day late.**

Do discussion posts count towards assessment?

Yes. Discussion contributions are weighted at 0.1 of your final grade. Only contributions to Topic Forums are counted, social posts and general questions and comments do not count towards your assessment. If you make fewer than ten posts to topic forums, your maximum possible mark will correspond to the number of posts made. **If you fail to submit your compiled posts by the due date, you will be subject to 5% penalty of the total mark per day late.**

How do I know my submission was successful?

There are two options for you to see your uploaded Assignments/Post compilations. 1. Return to the Assignment activity submission point where the uploaded file will be viewable. 2. If the Activities block is available for the unit, click on the Assignments link. All Assignment activities, including those that are 'already open' and 'closed', will be viewable here.

Students should print a copy of one of these screens after submission. No claims regarding missing post compilation submissions will be considered under any circumstances without a copy of this printout.

What happens if do not submit my compilation by the due date?

Post compilations received after the due date will be accepted provided they are received no later than **five working days late**. No compilations will be accepted after this time, except when an extension has been applied for before the due date and granted. After the due date (unless an extension has been granted) a late penalty will be applied, leading to a reduction in the awarded mark. **The late penalty is 5% of the total mark for each day the compilation is outstanding** beyond the due date. These penalties are imposed in fairness to students who submit compilations on time.

How do I get an extension?

In extenuating circumstances, students may apply to the unit coordinator for an extension to the compilation due date. Reasons for the extension need to be documented through the **disruption to studies process** accessible through ask@mq.edu.au and supported with a PAF (Professional Authority Form)

NOTE: You should read the additional information about the conditions for special consideration in the General Assessment Information section of this unit guide.

Note that:

- Students **MUST** contact the unit coordinator via Dialogue **prior to submitting their request through ask@mq.edu.au**
- Extension will only be granted in receipt of the completed form submitted through askMQ, plus documentation.
- Emails are not appropriate means of extension requests.
- It is essential that you plan ahead and organise your study time effectively. Poor time management is not grounds for an extension

- **Extensions are usually not granted on the due date**

On successful completion you will be able to:

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

ASSIGNMENT

Due: **28th April 2016**

Weighting: **15%**

The assignment will present a task related to numeracy. The assignment will be available from the website from 7/4/2016 and will be due 11.55pm on 28/4/2016.

What is required for the assignment?

In general good presentation, correct grammar, spelling and appropriate word choice will be expected. Express your ideas concisely and clearly, and observe any stated word limits. Please use single spacing.

You must complete the cover sheet provided for each assignment.

The assignment should be completed individually. It should be your own work, based on your personal study and research.

How do I submit my assignment?

You will submit your assignment through the iLearn website. Detailed instructions will be provided on the website.

You should follow the detailed instructions carefully. Marks (up to 5% of the total mark) may be

deducted, for example, for failing to write your name on the assignment.

How do I know my assignment submission was successful?

There are two options for you to see your uploaded Assignments. 1. Return to the Assignment activity submission point where the uploaded file will be viewable. 2. If the Activities block is available for the unit, click on the Assignments link. All Assignment activities, including those that are 'already open' and 'closed', will be viewable here.

Students should print a copy of one of these screens after submission. No claims regarding missing assignments will be considered under any circumstances without a copy of this printout.

KEEP A COPY OF YOUR ASSIGNMENT

How do I use the assignment cover sheet?

The cover sheet will be attached to the assignment (available on the iLearn website). Note that the checklist on the assignment must be completed or your assignment will not be accepted. You will be notified through Dialogue that your assignment was not acceptable and you will need to submit the assignment again with a completed cover sheet. Note that typing your student number on the coversheet is considered equivalent to providing a signature.

Can I submit a late assignment?

Assignments (either original submissions or resubmitted assignments) received after the due date will be accepted provided they are received no later than **five working days late**. No assignment will be accepted after this time, except when an extension has been applied for before the due date and granted. After the due date (unless an extension has been granted) a late penalty will be applied, leading to a reduction in the awarded mark. **The late penalty is 5% of the total mark for each day the assignment is outstanding** beyond the due date. These penalties are imposed in fairness to students who submit assignments on time.

How do I get an extension?

In extenuating circumstances, students may apply to the unit coordinator for an extension to the assignment due date. Reasons for the extension need to be documented through the **disruption to studies process** accessible through ask@mq.edu.au and supported by a Professional Authority Form (PAF)

NOTE: You should read the additional information about the conditions for special consideration in the General Assessment Information section of this unit guide.

Note that:

- Students **MUST** contact the unit coordinator via Dialogue **prior to submitting their request through ask@mq.edu.au**
- Extension will only be granted in receipt of the completed form submitted through askMQ, plus documentation.
- Emails are not appropriate means of extension requests.
- It is essential that you plan ahead and organise your study time effectively. Poor time

management is not grounds for an extension

- **Extensions are usually not granted on the due date.**

What if I exceed the word limits?

Components of answers beyond the stated word limit will not be marked. That is, answers will only be marked up to the stated word limit.

How will I get feedback on my assignment?

Individual feedback will be provided through the iLearn site. Assignment marks will be available in GRADES. The assignment may also be discussed at Problem Solving feedback sessions.

Can I resubmit an unsatisfactory assignment?

Resubmission of unsatisfactory assignments is not permitted.

On successful completion you will be able to:

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Problem Solving Exercise 1

Due: **7th April 2016**

Weighting: **35%**

Problem Solving Exercise 1

Problem Solving Exercises consist of a series of practical problems. The problems presented are typically scenario based and require the practical application of principles and knowledge addressed in the unit. The assessment may involve the presentation of text-based scenarios.

Many questions will be similar in format to the problem solving activities presented during topic seminars, on the discussion forums and during problem solving review seminars for the unit. These will provide excellent preparation for Problem Solving. For example, students may be

required to select measurement or monitoring strategies for a particular behaviour and scenario, write instructional objectives, identify assessment or intervention strategies from given examples and describe how to apply intervention strategies, design, comment on, analyse or interpret assessment and/or monitoring data; describe, outline, analyse, justify and/or comment on support or intervention strategies; or suggest, analyse or justify strategies for collaborating. in a given scenario.

The first Problem Solving Exercise will cover Modules 1 and 2 and Topic 1 and 2 from Module 3 and the second will cover the whole Unit but will have a focus on Module 3 Topic 3, Module 4 and Module 5.

A Problem Solving Exercise is an open book assessment of three hours duration. The Problem Solving Exercises will be completed in class (or with a supervisor for distance students). They may use both video segments and text-based scenarios or questions. You may bring any paper-based materials to the assessment including textbooks and your own notes. PLEASE NOTE THAT SHARING OF MATERIALS WILL NOT BE ALLOWED IN PROBLEM SOLVING EXERCISES UNDER ANY CIRCUMSTANCES. You may not use electronic devices such as computers, iPads or other tablets, or phones. In some cases a calculator may be allowed, but this must be a stand alone calculator, and not part of a phone or other electronic device.

Problem Solving Exercises are designed to assess your competency with the material covered in the unit and, consequently, a high pass mark is typically set.

The specific instructions for each Problem Solving Exercise will be on the first page of the question paper. You may only write on the question paper provided. Any breaches of the instructions (for example, using your own paper to make notes about questions, taking any notes out of the room where the Problem Solving is held) may result in zero marks being awarded for that exercise, or zero marks being awarded for some questions.

NOTE: You must bring your student ID or Campus Card with you to the Problem Solving Exercise and display it on your desk.

Information about Campus Cards is at

http://students.mq.edu.au/services_and_facilities/services_facilities_a-z/campus_card/

When are Problem Solving Exercises held?

For students completing the exercises on-campus, Problem Solving Exercises are held:

7th April 2016

16th June 2016

There will be two sessions each day, one at 10 am and one at 5.00pm. **Students are required to indicate which session they will attend via the Choice activity on the iLearn site. The Choice activity will be open for 48 hours following notice in the Announcements section. Students must respond in this timeframe or they will be allocated to a session.**

Problem Solving Exercises need to be completed by **distance students** with a supervisor as follows:

Should be completed between Problem Solving 1

Monday 4th April

and

Sunday 10th April

Problem Solving 2

Monday 13th June

and

Sunday 19th June

If a Problem Solving Exercise is completed outside these dates without a serious reason and without the approval of your unit convenor and Dr Alison Madelaine, you may be awarded an F grade.

Where are they held?

Compulsory Problem Solving Exercises will be held at MUSEC (Building X5A) to supervise internal students and external students who live in the Sydney metropolitan area. The Sydney metropolitan area is considered to be the area bounded by Engadine in the south, Campbelltown in the southwest, Penrith in the west, North Richmond in the northwest and Brooklyn in the North. Final decisions about boundaries are at the discretion of the External Student Supervision Coordinator (Dr Alison Madelaine). Under all but exceptional circumstances (e.g., documented medical problems) it is expected that students residing in the Sydney metropolitan area will attend the on-campus assessment session.

Distance students living outside the Sydney metropolitan area will need to make arrangements for an appropriate, approved supervisor **before the end of the second week of the semester**.

Students who normally live within the Sydney area, but who will be out of Sydney at the time of a Problem Solving Exercise MAY NOT ARRANGE external supervision.

Requests for supervisor changes may be considered for students permanently changing location but WILL NOT be considered for students travelling during the semester.

Students are required to be available for the entirety of the official examination period.

What are the special arrangements for distance students?

Off-campus completion of Problem Solving Exercises is also available as an additional support to students who enrol in external mode and reside outside the Sydney metropolitan area. The Sydney metropolitan area is considered to be the area bounded by Engadine in the south, Campbelltown in the southwest, Penrith in the west, North Richmond in the northwest and Brooklyn in the North. Final decisions about boundaries are at the discretion of the External Student Supervision Coordinator (Dr Alison Madelaine). You need to nominate a supervisor to

receive the materials and supervise Problem Solving Exercises and feedback sessions. You must also complete a Statutory Declaration stating that you will not have any unsupervised access to problem Solving Exercises and Feedback materials. Under normal circumstances, supervisors would have a working relationship with you but must not be personally related to you or in a subordinate role. Appropriate supervisors could include a head/executive teacher, school principal or school counsellor. Friends or acquaintances will not be accepted as supervisors. It is your responsibility to locate an appropriate supervisor who is acceptable to the External Student Supervision Coordinator (Dr Alison Madelaine). The acceptance of nominated supervisors is entirely at the discretion of the External Student Supervision Coordinator. Under normal circumstances, materials will only be sent to the supervisor at a work postal address. If you wish to discuss the suitability of a potential supervisor, please contact Dr Madelaine by phone on (02) 9850 9699 or email (alison.madelaine@mq.edu.au).

You must also complete a **Statutory Declaration** stating that you will not have any unsupervised access to Problem Solving Exercises or Feedback materials.

A SUPERVISOR NOMINATION FORM IS PROVIDED FOR DOWNLOAD IN THE ILEARN SITE FOR EACH UNIT.

A STATUTORY DECLARATION FORM IS PROVIDED FOR DOWNLOAD IN THE ILEARN SITE FOR EACH UNIT.

Completing the Statutory Declaration Form

You must complete ONE Statutory Declaration to cover all units you are attempting. **It is your responsibility to ensure that you read and understand the requirements of the statutory Declaration, and that you supply all required information.** Your Statutory Declaration must be witnessed and signed by a suitable person (see the list on the form). For most students, the preferred witness would be your school principal. The form must be returned with your supervisor nomination form(s) to Dr Alison Madelaine.

If there is a violation of the Statutory Declaration you must contact Dr Alison Madelaine and the unit convenor as a matter of urgency.

The supervisor nomination form and Statutory Declaration must be returned to MUSEC by the end of the second week of the semester (**11th March, 2016**). Nomination forms will not be accepted after this date and you will have to complete Problem Solving Exercises on-campus or withdraw from the unit. **This deadline is ABSOLUTELY NOT negotiable.** You will receive an acknowledgement of your supervisor nomination through Dialogue. If you do not receive an acknowledgement, your nomination has not been received and you must contact the External Student Supervision Coordinator urgently.

***Please note that you need to provide a separate supervisor nomination form for EACH unit you are enrolled in. You should receive an acknowledgement for EACH unit you are enrolled in. You need only return one Statutory Declaration, but indicate which units you are completing.

Supervisors should be aware that they would be required to supervise you for two Problem Solving Exercises of 3 hours each. They will also need to supervise you for two feedback sessions lasting up to 1 hour each.

Further, they will be required to certify that appropriate conditions have been in place. Supervisors may do other work while you are completing the assessment/feedback sessions but they **must** remain with you. Note that if there is any unanticipated variation to supervision arrangements, for example, a fire drill or if the supervisor is called away urgently, the student and/or supervisor should notify the External Student Supervision Coordinator (Dr Alison Madelaine) as soon as possible after the Problem Solving Exercise has been completed. Acting as a supervisor is voluntary but supervisors do receive a formal letter of appreciation.

Problem Solving Exercises will be posted to your supervisor approximately one week before the due date and you will have a one-week window in which they must be completed and returned.

It is essential that a correct WORK address is provided for your supervisor, and that other information on the Supervisor Nomination Form is accurate.

It is critical that the assessments are completed in the date range specified.

It is essential that a correct WORK address is provided for your supervisor, and that other information on the Supervisor Nomination Form is accurate.

The provision of a non-work address (for example, your supervisor's home address) for your supervisor's workplace, or the provision of other misleading information, may be treated as academic misconduct.

Please ask your supervisor to carefully check the dates before signing the nomination form to ensure they will be available.

Please note that you will need access to a computer or DVD player in order to complete the Problem Solving Exercises and/or feedback sessions.

Before EACH Problem Solving Exercise and EACH Feedback Session you will be sent, through Dialogue on the iLearn website, a copy of the letter, instructions and certification form to be sent to your supervisor. You must respond to this message **within 48 hours** to indicate that you have read and understood the conditions of the Problem Solving Exercise or Feedback Session and to confirm that the supervisor's name and mailing address are correct. Problem Solving and Feedback packages will not be mailed out until this confirmation is received.

If you provide a late response, and your assessment package is sent out late, NO ADDITIONAL TIME WILL BE ALLOWED FOR COMPLETION. You must still complete the Problem Solving Exercise before the 10th April (first Problem Solving exercise) or 19th June (second Problem Solving Exercise)

What happens if my Problem Solving Exercise does not arrive?

We recommend that you check with your supervisor before the day you plan to complete the Problem Solving Exercise that he/she has received the package from MUSEC. If your supervisor has not received the package, we recommend double-checking the internal mail handling within your school or organisation before contacting MUSEC. If the materials cannot be found after a search, contact Natalie Watson at MUSEC (phone (02) 9850 8708 or email natalie.watson@mq.edu.au).

What if I need to change my supervision arrangements?

If your circumstances change and you no longer need to complete a Problem Solving Exercise externally, or if you are able to travel to MUSEC for a feedback session or if there are any other changes to your supervision arrangements, **you must notify the convenors of each unit you are completing AND the External Student Supervisor Co-ordinator.**

If you complete a Problem Solving Exercise or a Feedback Session with a person who is not an approved supervisor, you may be awarded a Fail grade.

How do I get feedback if I attended the on-campus session?

Two feedback sessions are held after Problem Solving Exercises. Students who attend campus to complete the Problem Solving Exercises are normally expected to attend one of these sessions for feedback. The answers to Problem Solving Exercises will be presented. Lecturers will overview the general principles, marking key, sample answers and discuss common problems or misconceptions. Students will be able to view their marked Problem Solving Exercises during the feedback sessions, but notes may not be made. Problem Solving Exercises will be returned for this session but they may not be retained. You will be provided with an individual feedback summary sheet.

If you have concerns about Problem Solving Exercises, please make an individual appointment after the feedback session. Individual appointments will not be made to give individual feedback unless students have attended a scheduled session or can provide evidence of unavoidable disruption to study, such as a medical certificate.

How do I get feedback if I completed the Problem Solving Exercise with an external supervisor?

Feedback seminars will be audio or video-recorded and sent to external students on DVD, along with the marked Problem Solving Exercise and an individual feedback summary sheet. Materials for the feedback session will be posted to your supervisor approximately 2 weeks after receipt of the exercise. Please note that your final results will not be released until all feedback materials have been returned to the University. Please note if you plan to attend a feedback session at MUSEC, you should inform the unit convenor that you do not require the feedback materials.

It is critical for students and supervisors to understand that students may only have access to materials in the presence of their supervisor. This means that the supervisor must post these items back to MUSEC. You may, however, keep your individual feedback sheet. If a student has **any unsupervised access** to either the Problem Solving Exercises or feedback materials (including posting them to MUSEC), they will automatically be failed on the Problem Solving Exercise, resulting in a failure on the unit. If a student decides to withdraw from the unit, materials must still be returned directly to MUSEC.

How do I get feedback if I am an out-of-Sydney student and choose to travel to MUSEC for the Problem Solving Exercises?

If you are a distance student, and choose to travel to MUSEC for the Problem Solving Exercises, but do not want to travel to the feedback seminars, you will need to have a supervisor for the feedback sessions. This should be arranged by the end of the second week of semester. If there are any changes to this arrangement, you should notify your unit convenor.

Is there anything else I should know about Problem Solving Exercises?

Students sometimes think that they do not need to be thoroughly familiar with the material in the unit as the exercises are open book. This is most definitely not the case. You need to be sufficiently familiar with the material to know where to look for material that will enable you to solve a given problem. Also, while you will have time in the Problem Solving Exercises to check a detail or look at an example, you will NOT have time to read chapters or review topics that have not been adequately covered in the first instance.

What if I am unable to complete a Problem Solving Exercise?

If you are unable to attend a Problem Solving Exercise, an application for extension or an alternate date **should submit a disruption to studies form** through ask@mq.edu.au. You must contact your unit convenor prior to submitting the request.

Reasons for the extension need to be documented through the disruption to study process accessible through ask@mq.edu.au and supported with documentation (e.g. a Professional Authority Form).

Extension will only be granted in receipt of the completed form submitted through askMQ, plus documentation. Further information about disruption to study is in the General Assessment Information section.

Requests that are made after the date of the Problem Solving Exercise will only be considered if the student can provide documented evidence that it was not possible to contact the unit convenor and submit a special consideration request before the due date.

You are advised that it is Macquarie University policy not to set early examinations for individuals or groups of students. All students are expected to ensure that they are available until the end of the teaching semester, that is the final day of the official examination period.

How do I get the results of Problem Solving Exercises?

Marked Problem Solving Exercises will be available for reviewing at the following Feedback Seminars.

Grades for the Problem Solving Exercises will be posted on the unit website, in GRADES under the TOOLS tab.

Please note that it is Centre policy that results will not be given over the phone or by

email. Please visit the unit website for information.

On successful completion you will be able to:

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Problem Solving Exercise 2

Due: **16th June 2016**

Weighting: **40%**

See Problem Solving 1 for full details of Problem Solving Exercises

On successful completion you will be able to:

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Delivery and Resources

General Organisation of the Unit

The unit is offered in a flexible delivery format. A combination of seminars (for oncampus students), readings, and Internet delivery may be employed. In addition support is available via telephone, Skype, the unit web site (including discussion forums and Dialogue for private communication). Most materials will be available online this semester. Drop in sessions will be offered weekly for internal students to discuss content. The only compulsory attendance will be for problem solving exercises.

It is very important to note that some components of the unit will be conducted on the web site. This means that internet access is essential to the completion of the unit.

Delivery is designed such that students may seek as much or as little assistance as required in completing the unit. It is critical that students are organised and disciplined. It is suggested that you allocate a total of 8-12 hours per week to study for this unit. If you get significantly behind in your topic coverage, it may be impossible to catch up. Please start your study as soon as possible.

Unit Delivery: Teaching and Learning Activities

Readings are designed to broaden a student's understanding of topics.

All seminars (apart from feedback seminars) are audio and/or video recorded and made available on ECHO (previously iLecture).

Students participate in Discussion Forums on the subject web site, complete Review Quizzes for each topic on the web site, complete the assigned readings and activities in the Study Guides and seminars, and complete any additional exercises for each topic.

Changes Made Since the Last Offering of the Unit

No changes have been made since the last offering of this Unit..

Optional Seminars

These are typically used for delivery of new content or review. See the "Modules" table for further details. Any student may choose to attend an optional seminar.

Feedback Seminars

At these seminars students may view their marked Problem Solving Exercises and the lecturer will discuss each question and respond to questions. Students who attend these sessions may make an appointment for further individual feedback if they wish. Feedback seminars will be offered more than once for each Problem Solving Exercise. Students should be aware that if they choose not to attend these seminars, individual appointments will not be made unless there is a serious reason for non-attendance (such as a documented illness). The seminars will be recorded for distance students outside the Sydney area who have an approved supervisor (see ASSESSMENT) to view under supervision.

Compulsory Seminars - Problem Solving Exercises

External students living in the Sydney metropolitan area and all internal students **must** attend in-class assessment seminars. There is no compulsory on campus attendance for students completing the unit externally outside the Sydney metropolitan area. The Sydney metropolitan area is normally considered to be the area bounded by Engadine in the south, Campbelltown in the southwest, Penrith in the west, North Richmond in the northwest and Brooklyn in the north. Final decisions about boundaries are at the discretion of the External Student Supervision Coordinator (Dr Alison Madelaine).

Drop-in Sessions

One-hour drop-in sessions may be offered during the semester. These sessions provide students with additional opportunities to ask questions or discuss issues of concern. Please note, these sessions will **ONLY** function to address student questions - there is no point attending unless you have a question to ask or issues to discuss. If there are no students attending in the first 15 minutes of a drop-in session, it will be cancelled.

Review Quizzes

Generally, there will be a Review Quiz for topics in the unit, available on the unit website. These quizzes enable you to monitor your own learning. The review quizzes will remain open throughout the semester.

What are Review Quizzes?

Review quizzes are online assessments in multiple-choice format. There is one quiz for each Module in the unit. We strongly suggest you complete the Review Quiz for each Module as a means of monitoring your own learning.

How do I do Review Quizzes?

The quizzes may be taken by logging into the unit web site and scrolling down to the link to the quiz within each topic section.

I'm concerned about doing an online quiz. What should I do?

A "dummy quiz" has been set up to give you some practice and allow you to get used to the quiz module. you may attempt the dummy quiz as many times as you like. It is strongly recommended that every student attempt the dummy quiz each semester. The dummy quiz is in the first section of the website under the heading "THINGS YOU SHOULD DO" and "Attempt the Dummy Quiz". Click on the link to open the quiz.

How do I know my attempt at a review quiz has been successful?

You will receive confirmation that your quiz has been submitted. Your mark will be available in

"GRADES" under the TOOLS tab on the left hand side of the webpage. Once you have completed a quiz, you should be able to view your answers and the feedback. If you are concerned about your mark, contact the unit convenor to discuss your results.

How many times may I attempt a quiz?

You may attempt review quizzes as often as you like. Review quizzes are not part of the assessment, they allow you to monitor and review your own learning.

I can't access the quiz or it won't work correctly?

Such problems are ALMOST ALWAYS RELATED TO USING AN INCORRECT BROWSER. Firefox is the recommended browser for iLearn. Contact IT help if you have problems.

Downloadable Documents

ALL study guides and resource materials must be downloaded from the website. Readings must be downloaded from the Multisearch website in the library, or from other sites as indicated in the study guides.

ECHO360

What is ECHO360?

Modules in this unit will involve a seminar recording via ECHO360 and will be accessed through links in the ECHO block. These presentations will typically consist of video or audio. They are accessed from the unit website. The presentation may include elucidation of the readings, additional information and practical exercises. Seminars should be viewed after you have completed the relevant reading for the topic.

Information about using ECHO360 is available at

http://www.mq.edu.au/iLearn/student_info/lecture_recordings.htm

and

http://www.mq.edu.au/iLearn/student_info/podcasts.htm

What do I need to do before I access ECHO360?

In order to use ECHO360 you will need QuickTime or other video player software (iTunes, VLC or Windows Media Player) and Flash for streaming playback or for downloading. You can download QuickTime through the iLearn site and you will be prompted to install Flash when you first access ECHO360, if it is not already installed on your computer.

What if I can't get ECHO360 working?

Don't panic. Contact the Student IT Helpdesk

Phone: (02) 9850 HELP (4357) (Option 1) or freecall 1800 67 4357

Email: help@mq.edu.au

Face to face: Building C5C Room 244, Macquarie University

Website: <http://www.mq.edu.au/onehelp/>

IT Onehelp ticket lodgement: <https://help.mq.edu.au/cgi-bin/WebObjects/OneHelp.woa>

Discussion Forums

Important information about the unit will be posted in Announcements section. You should check it regularly – AT LEAST ONCE EVERY 48 HOURS

There will also be a Discussion Forum for each Module topics where students can post questions or comments and discuss the issues raised during the unit. These topics/Modules will close progressively through the unit (see Assessment Tasks). Once the Module has closed you will no longer be able to post to that module, however you will still be able to read the Discussion Posts already made before the Module closes. Students are required to contribute 10 posts across the five modules as part of the assessment requirements for this unit (see Assessment Tasks).

Although unit convenors typically check the Discussion Forums daily (on weekdays), they will not respond to all posts, as discussion between students may be more appropriate.

Dialogue

Important information, particularly for students outside Sydney will be sent through Dialogue. You should check it regularly - AT LEAST ONCE EVERY 48 HOURS.

Preferably, unit related messages should be directed to unit staff using Dialogue on the website. Questions that you have that are relevant to others in the unit should be posted in Discussion Forums. If you send such questions using Dialogue, they may be posted anonymously and answered in Discussions.

DVD

Feedback on Problem Solving Exercises for students outside the Sydney area and for international students will be presented on DVD. You should check that you have access to a suitable DVD player or computer.

Enquiries regarding all dispatch and student postgraduate materials should be directed to: Natalie.Watson@mq.edu.au

Unit Schedule

Unit Schedule

Classes

All seminars are in Room 130 at MUSEC Building X5A. There are two compulsory assessment seminars that must be attended by internal students living in the Sydney Metropolitan area. All remaining seminars are optional.

NOTE: Only afternoon seminars are available, except for compulsory assessment seminars, which will be available in both the morning and the evening.

Seminars will vary in length depending on the content to be covered, but will generally be a maximum of 3 hours.

These dates are for the THURSDAY of each semester week. All sessions for SPED825 are held on Thursday.

DATE	TIME	SEMINAR FORMAT
3rd March	5pm-6pm	Drop in session
10 th March	5pm-6pm	Drop in session
17 th March	5pm-6pm	Drop in session
24 th March	5pm-6pm	Drop in session
31 st March	5pm-6pm	Drop in session
7 th April	10 am to 1pm or 5pm to 8pm	COMPULSORY SEMINAR: PROBLEM SOLVING 1 Module 1, Module 2 and Module 3 (Topics 1 & 2 only)
11 th April to 24 th April		UNIVERSITY BREAK (No classes, but students complete independent study)
28 th April	5pm – 6pm	Optional on-campus seminar Feedback for Problem Solving 1
5 th May	5pm – 6pm	Optional on-campus seminar Feedback for Problem Solving 1 (REPEAT)
12 th May	5pm-6pm	Drop in session
19 th May	5pm-6pm	Drop in session
21 st May	5pm – 6pm	Drop in session
26 th May	5pm-6pm	Drop in session
2 nd June	5pm – 6pm	Drop in session
16 th June	10 am to 1pm or 5pm to 8pm	COMPULSORY SEMINAR PROBLEM SOLVING 2

23 rd June	5pm –6pm	Optional on-campus seminar Feedback Problem Solving 1
30 th June	5pm –6pm	Optional on-campus seminar Feedback Problem Solving 2 (Repeat)

The following table gives an overview of topics covered in the unit and the suggested completion date.

Module	RECOMMENDED COMPLETION DATE	CONTENT	FORMAT
1	14 th March	Introduction Mathematical Knowledge Approaches to numeracy for students with special education needs	ECHO
2	21 st March	Assessment of numeracy Skills. Testing and teaching early numeration skills (Number Sense)	ECHO
3	28 th March	Testing and teaching of procedural strategies (Addition) Testing and teaching procedural strategies (Subtraction)	ECHO
4	23 rd May	Testing and teaching of procedural strategies (Multiplication) Testing and teaching of procedural strategies (Division)	ECHO
5	6 th June	Testing and teaching Problem Solving Skills Testing and teaching functional maths	ECHO

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](#). Students should be aware of the following policies in particular with regard to Learning and Teaching:

Academic Honesty Policy http://mq.edu.au/policy/docs/academic_honesty/policy.html

New Assessment Policy in effect from Session 2 2016 http://mq.edu.au/policy/docs/assessment/policy_2016.html. For more information visit http://students.mq.edu.au/events/2016/07/19/new_assessment_policy_in_place_from_session_2/

Assessment Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/assessment/policy.html>

Grading Policy prior to Session 2 2016 <http://mq.edu.au/policy/docs/grading/policy.html>

Grade Appeal Policy <http://mq.edu.au/policy/docs/gradeappeal/policy.html>

Complaint Management Procedure for Students and Members of the Public http://www.mq.edu.au/policy/docs/complaint_management/procedure.html

Disruption to Studies Policy http://www.mq.edu.au/policy/docs/disruption_studies/policy.html *The Disruption to Studies Policy is effective from March 3 2014 and replaces the Special Consideration Policy.*

In addition, a number of other policies can be found in the [Learning and Teaching Category](#) of Policy Central.

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: https://students.mq.edu.au/support/student_conduct/

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit [ask.m](#)

q.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Portal

The Student Portal provides the gateway to information for current students. It has been designed to bring all student resources to one location. The Portal contains links to Student email and calendar, online units, eStudent, askMQ and many other student and university resources.

Access the portal at

<http://students.mq.edu.au/home/>

The link for First Time Login is on this page. You must complete this login to get access to other sites such as eStudent.

The link to eStudent is on the Student Portal page.

eStudent is where students can enrol online, change their study programs view their academic record, receive announcements from the university, as well as change some personal information that may become out of date.

End of semester results can be found on the eStudent website. Semester 1 results will be released on 17th July.

If you are having problems accessing the site (e.g. password/browser/technical issues) contact the Helpdesk (see the IT Help section of this guide).

Check the eStudent Noticeboard and your university email weekly for important communication from the university such as advice of iLearn outages.

Visit <http://ask.mq.edu.au> to find answers to your student administration questions. Search the Q & A Section for answers and, if you can't find what you're looking for, submit an online enquiry and get a response to your official Macquarie University student email address.

Disruption to studies forms, grade appeals and grade reviews are submitted through AskMQ.

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

The Disability Support provides support and assistance to students with a disability/health condition in aiming to ensure that they do not experience disadvantage in reaching their academic potential. Service provision is determined on a case-by-case basis following an assessment of a student's needs and the provision of supporting documentation. Service provision is also dependent on the availability of resources.

For information about registering with the Disability Service and to download the campus Wellbeing Registration Form and health Professional Form go to:

http://students.mq.edu.au/campus_life/campus_wellbeing_support_services/disability_service/how_to_register/

You must register annually, irrespective of whether a disability/health condition is temporary, longterm or permanent.

Students wishing to request support services from the Disability Service should make an appointment to see a Disability Advisor **IMMEDIATELY AFTER ENROLLING** at Macquarie University. If you are not registered with the Disability Service at the time of an assessment task, you may not be provided with any accommodations.

Phone: (02) 9850 7497 TTY (02) 9850 6493

Email: campuswellbeing@mq.edu.au

In person: Level 2, C8A (Lincoln Building)

It is **strongly recommended** that you contact convenors **IMMEDIATELY AFTER ENROLLING** (or as soon as possible for temporary disabilities) to discuss adaptations that may assist you in the successful negotiation of units with the Macquarie University Special Education Centre.

Typically we require a minimum of three weeks notice to be able to ensure that accommodations for Problem Solving Exercises or in-class assessments can be put in place. **Please contact your unit convenors BEFORE the 6th March to ensure your needs are met.**

Unit Convenor: Dr Toni Hopper

toni.hopper@mq.edu.au

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#).

The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

PG - Capable of Professional and Personal Judgment and Initiative

Our postgraduates will demonstrate a high standard of discernment and common sense in their professional and personal judgment. They will have the ability to make informed choices and decisions that reflect both the nature of their professional work and their personal perspectives.

This graduate capability is supported by:

Learning outcomes

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

PG - Discipline Knowledge and Skills

Our postgraduates will be able to demonstrate a significantly enhanced depth and breadth of knowledge, scholarly understanding, and specific subject content knowledge in their chosen fields.

This graduate capability is supported by:

Learning outcomes

- Describe and apply the range of appropriate assessment strategies relevant to numeracy

skills of an individual

- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

PG - Critical, Analytical and Integrative Thinking

Our postgraduates will be capable of utilising and reflecting on prior knowledge and experience, of applying higher level critical thinking skills, and of integrating and synthesising learning and knowledge from a range of sources and environments. A characteristic of this form of thinking is the generation of new, professionally oriented knowledge through personal or group-based critique of practice and theory.

This graduate capability is supported by:

Learning outcomes

- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

PG - Research and Problem Solving Capability

Our postgraduates will be capable of systematic enquiry; able to use research skills to create new knowledge that can be applied to real world issues, or contribute to a field of study or practice to enhance society. They will be capable of creative questioning, problem finding and problem solving.

This graduate capability is supported by:

Learning outcomes

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

PG - Effective Communication

Our postgraduates will be able to communicate effectively and convey their views to different social, cultural, and professional audiences. They will be able to use a variety of technologically supported media to communicate with empathy using a range of written, spoken or visual formats.

This graduate capability is supported by:

Learning outcomes

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.
- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

PG - Engaged and Responsible, Active and Ethical Citizens

Our postgraduates will be ethically aware and capable of confident transformative action in relation to their professional responsibilities and the wider community. They will have a sense of connectedness with others and country and have a sense of mutual obligation. They will be able to appreciate the impact of their professional roles for social justice and inclusion related to national and global issues

This graduate capability is supported by:

Learning outcomes

- Describe and apply the range of appropriate assessment strategies relevant to numeracy skills of an individual
- Describe and apply a range of strategies relevant to the numeracy skills of individuals.
- Utilise professional knowledge and capacity for problem solving to select, develop and implement appropriate assessment, programming, intervention and monitoring strategies to meet the needs of particular individuals.
- Draw on unit content, professional experience and the research literature to evaluate and

critically reflect on a range of contemporary practices relevant to the development of numeracy skills in individuals.

- Critically reflect on the research base underlying our current knowledge and identify both strengths and weaknesses in approaches to addressing numeracy problems in individuals.

Assessment tasks

- On line Participation
- ASSIGNMENT
- Problem Solving Exercise 1
- Problem Solving Exercise 2

Required Unit Materials and readings

Text

The required text for this unit is:

Stein, M; Kinder, D; Silbert, J & Carnine, D. W. (2006). *Designing effective mathematics instruction. A direct instruction approach*. (4th ed). Upper Saddle River, NJ: Pearson Merrill Prentice-Hall.

There may be limited availability re this text from the Co-Op so students are strongly advised to source a copy of this text from other sources as soon as possible before the unit begins.

Other Required Reading

Required readings for each topic are listed in the Study Guides for each topic, available from the iLearn site. Compulsory readings may be downloaded from the multisearch section of the Library web site at: <http://www.library.mq.edu.au/reserve/> or from sites as advised in the study guides.

Unit Web Page

Unit web page

Access

An iLearn website has been established to support this unit. The site will offer the option of discussion forums on specific topics and Dialogue (Private communication) within the unit. Required study materials, review quizzes and assessment information are available on the website.

You should check the website (General Discussion Forum and your Dialogue) at least ONCE EVERY 48 HOURS. You will NOT receive

any material in the mail.

ALL communication is through the website. The website may be accessed at:
<https://ilearn.mq.edu.au>

Information about using iLearn is available at: http://www.mq.edu.au/iLearn/student_info/

This page includes information and links (on the left hand side of the page) about topics such as: navigating iLearn, using discussion forums, getting started with iLearn.

How do I get a password?

Information on first time log in and passwords is at <https://mypassword.mq.edu.au/index.php?screen=MQInitPW>

You will need your Student OneID number, surname and data of birth.

What if I have password problems or need IT help?

If you have password problems or any other difficulties accessing the website, please contact: Student IT Help

Phone: (02) 9850 HELP (4357) (option 1) or freecall 1800 67 4357 Email: help@mq.edu.au

Face-to-face: Building C5C, Room 244 Website: <http://www.mq.edu.au/onehelp/>

Onehelp Ticket Lodgement: <https://help.mq.edu.au/cgi-bin/WebObjects/OneHelp.woa>

PLEASE NOTE:

If you have contacted IT Help and still have difficulties obtaining your user name and password and are **UNABLE** to access unit websites **at the end of the first week of semester**, please contact Natalie Watson (natalie.watson@mq.edu.au) at MUSEC. Arrangements may be made to email you important study materials.

Where Do I Start

To get you started in this unit, tick off each action as you complete it.

ACTION	COMPLETED
Carefully read this unit guide	
Carefully read this unit guide a second time	
Organise purchase of the textbook (Stein, Kinder, Silbert & Carnine, 2006)	
Go to the unit website (from Friday 26TH FEBRUARY) and check Announcements, Dialogue and Discussion Forums for messages.	
If you have problems accessing the site contact IT Help urgently.	
Go to the START HERE section of the website, read and follow the instructions.	

Go to Module 1 section of the website and follow the instructions	

Changes since First Published

Date	Description
19/02/2016	Some dates were changed.