

# Evidence-Based Practice in Speech-Language Therapy (SHSC 2033)

## Course Syllabus

2018–19



香港大學

THE UNIVERSITY OF HONG KONG

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NO. OF CREDITS	6
PRE-REQUISITES	Introduction to Communication Disorders (SHSC 1033) Research Methods & Statistics (SHSC 2032)
GRADING SYSTEM	Letter grades (A+ to F) with grade points
CLASS ROOM	TT Tsui Building, Room 403 (TT403)
CLASS TIME	Wednesdays, 9.30am–12.20pm
COURSE WEBSITE	<a href="https://moodle.hku.hk/login/index.php">https://moodle.hku.hk/login/index.php</a> (SHSC2033)
COURSE COORDINATORS	Professor Thomas Klee (Meng Wah Complex, room 761)
E-MAIL	tomklee@hku.hk  Dr Elizabeth Barrett (Meng Wah Complex, room 763) barrett1@hku.hk
OFFICE HOURS	We don't have regular office hours but we're happy to meet with you to discuss any aspect of the course. Please email one of us to make an appointment.

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## Course description

Evidence-based practice (EBP) is, in part, the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual clients (Centre for Evidence-Based Medicine, Oxford). Having its origins in the fields of medicine and clinical epidemiology, EBP is a growing part of speech and language therapy. As Greenhalgh (2001) expressed in her book, *How to Read a Paper*, we hope this course will 'de-mystify the important but often inaccessible subject of evidence based practice' and develop your knowledge and skills in this area by introducing you to ways of judging the value of assessment procedures and intervention practices in speech and language sciences.

This course will introduce you to the principles and methods of EBP. You will learn about the structure of research papers and how they get reviewed and published. You will develop knowledge of intervention research designs ranging from single-subject designs to randomised controlled trials. You will learn how to judge the value of intervention and assessment research evidence and clinical practice evidence in relation to your client's unique values and circumstances. You will learn about how to monitor the extent to which standards of best practice are being implemented. You will also develop skills in searching for and critically appraising research evidence and present a critical review of evidence related to a specific clinical area that interests you.

## Course objectives

The course is designed to help to you formulate clinical questions and develop your ability to find, read and critically evaluate research related to assessing and treating people with speech, language and swallowing disorders. You will interact with other students in small group discussions and present findings related to a clinical question of interest to you.

## Course learning outcomes

*By the end of the course, you should be able to:*

1. Identify and describe the components and structure of published research papers;
2. Understand how research papers are published, including the role of peer-review;
3. Formulate answerable clinical questions;
4. Search the literature for evidence-based research that addresses clinical questions using specialised bibliographic databases (e.g. PubMed, PsychINFO, The Cochrane Library);
5. Assess the methodological quality of the research by critically appraising the research evidence;
6. Synthesise the conclusions of evidence-based findings for use in your clinical practice;
7. Present a critical review of evidence relating to a specific area of clinical interest.

*These outcomes will be achieved by:*

- Engaging in interactive class lectures and small group discussions;
- Completing the required readings;
- Independent learning.

## Course textbook and other assigned readings

The main textbook for the course is Dollaghan (2007), a book that should be useful throughout your career. A good alternative that covers much of the same material, but from the perspective of evidence-based medicine, is Greenhalgh (2010). In addition to the textbook, a set of published articles will be assigned each week (see next section).

## Course teaching and learning activities; class attendance

The course consists of lectures and small group seminar discussions. Except for the readings in Week 1, **you are expected to read those listed as required papers in advance of each class**. In preparation for each week's seminar discussion, please upload a 150-250 word summary of each *seminar reading* to Moodle before the start of class. The summaries should be written by you alone and may contain a mix of text and bullet points. You may be asked to verbally summarise one or more of the seminar readings in class.

The readings for the course are divided into several groups. Some of the required readings were selected to introduce you to key principles and methods of EBP (*background readings*), while others will form the basis of your discussion groups. The *advanced background readings* build on the material in the main textbook and, being optional, are there for you to pursue in your own time and may be helpful in preparing for the written assignments or for deepening your knowledge of EBP beyond the course.

You are expected to attend all class sessions. Attendance and active participation are particularly important to the success of small group discussions, where your absence or lack of preparation and participation puts additional burden on students who attend and have done the readings. Points will be deducted from your final grade for failing to attend and participate in any session without prior notice.

A rough estimate of the amount of time most students should plan for in this course (excluding preparing for the written assignments) is:

Activities	Notional no. of hours
Interactive lectures	18
Library-based practical session	1.5
Discussion groups	16.5
Reading and self-study	84–144
Total	120–180

## Course assessment

Assessment	Percentage of course grade
Weekly written summaries	10% (Pass, if <i>all</i> assignments submitted on time; otherwise, Fail)
Quizzes (4)	20% (5% each)
Written assignment 1	15%
Written assignment 2	55%

**Written summaries** In preparation for each week's seminar discussion, please upload a 200–250 word summary of each required seminar reading to Moodle (Turnitin) *and* the Moodle forum 24 hours before the start of each class (i.e., by 9.30 am Tuesday). These should be written by you alone and may contain a mix of text and bullet points. After the summary, write one question you have based on your reading of each seminar paper. The question could relate to the study design, the topic or any other area you found confusing. Please submit your summary with your name and UID listed within the body of the paper. After reading the each required seminar reading, please post:

- a 200-250 word summary of the reading, in your own words (do not cut-and-paste from the article, ever)

- a question specific to the seminar reading or its relation to the concepts learned in the EBP lecture

After you submit your post to the forum, you will be able to view your classmates' posts. Your post will also be visible to your classmates and the course instructors. The posts from the forum may be used to facilitate class-wide discussion.

**Quizzes** These are designed to encourage you to review the material covered each week and test your accumulated knowledge of information from lectures and the text book. They can occur at any time and will not be announced in advance. Quizzes will be given at the beginning of class and you must be in your seat when class begins at 9.30 am to take them. No exceptions will be made and make-up quizzes will not be given.

**Written assignments** These two assignments are linked to each other and should focus on a clinical question related either to intervention or assessment of individuals with a communication or swallowing disorder such as, *"What is the evidence that intervention benefits the language development of late-talking children?"* or *"What evidence is there that standardised language tests accurately identify children with language disorders?"* You can find examples of other clinical questions on Moodle under *Resources*. You are encouraged to ask a clinical question of particular interest to you. Further information about the written assignments is presented below.

**Written Assignment 1** should include:<sup>1</sup>

1. Your question in PICO format;
2. Why you are asking the question you're asking;
3. A brief summary of one research paper relevant to your question;
4. A brief summary of your critical appraisal of the paper;
5. Citations and references in APA format (American Psychological Association, 2010);
6. Completed critical appraisal form attached as an appendix (not counted in page limit);
7. Maximum of 2 pages, double-spaced, plus critical appraisal checklist and references.
8. **Due Wednesday, 13 February 2019, 4pm.**

**Written Assignment 2** should include:

1. Your revised (if necessary) question in PICO format;
2. A revised (if necessary) rationale for why you're asking the question you're asking;
3. How you searched for evidence to answer your question, listing all search engines (e.g., PubMed, Cochrane Library) with 'hit' counts, key words and/or MeSH terms used;
4. How you decided which studies to include in your review and which to exclude;

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<sup>1</sup>You will be given written feedback on this assignment. From that, revise your PICO question and provide additional rationale if necessary and incorporate these into the second assignment.

5. A list of the included studies in your review, summarised in a table based on the Cochrane reporting framework. This table should include the following rows for each study you report: Author + Date, Methods, Participants, Interventions, Outcomes, Notes, Risk of Bias)<sup>2</sup>;
6. A critical appraisal of this evidence followed by your conclusion(s);
7. Suggestion(s) for future research which addresses your question;
8. Citations and references of included studies in APA format (American Psychological Association, 2010);
9. Maximum of 6 pages, double-spaced, plus Cochrane table and references.
10. **Due Friday, 26 April 2019, 4pm.**

### Submitting written assignments

- Written Assignment 1 should be submitted to Turnitin on Moodle and a second copy uploaded to Moodle by 4pm on the date due. Please remember to upload your file in both places on Moodle.
- Written Assignment 2 should be submitted to Turnitin on Moodle by 4pm on the date due. Please also put a paper copy in the Assignment Box (MW 742) by the same deadline.
- The date and time of your submission is recorded by Turnitin and Moodle upon submission and this will be used for determining whether the deadline was met. Points will be deducted if the assignment is not submitted to both platforms by the deadline.
- Plan to submit in advance of the deadline in case you encounter any computer problems at the last minute. Give yourself plenty of time!
- If you encounter a problem uploading your document, you can email it to Dr Barrett by the same deadline.
- Penalties apply for late submissions as per Division policy (see Late Work section).
- Upload your assignment in Word format, using the .docx filename extension. Do not use other file formats (eg .pdf, .odt, .pages).
- Submit your assignment, including any appendices, *as a single .docx file*.
- Grading will be done blindly, so please do not put your name on the assignment. Instead, please put your student ID number *on each page of the header or footer*.

### Course grades

Your grade for the course will be determined on the basis of the assessments listed above in accordance with the grading system in the Undergraduate Handbook. See Regulation UG 8 at the link below.<sup>3</sup>

<sup>2</sup>For examples of such a table, see the Appendix of Meinusch and Romonath (2011) or the *Characteristics of Studies* section at <https://www.cochranelibrary.com/cdsr/doi/10.1002/14651858.CD009383.pub2/references>.

<sup>3</sup><http://www.handbook.hku.hk/ug/full-time-2017-18/appendices/b-regulations-for-first-degree-curricula>

## Academic dishonesty policy

Please familiarise yourself with the University policies on copyright and plagiarism in the Undergraduate Handbook.<sup>4</sup>

## Disabilities policy

Students with disabilities or special educational needs should consult the Undergraduate Handbook for further information and contact CEDARS early in the semester.<sup>5</sup>

## Class schedule and reading assignments

### Week 1 — January 16

- Lecture (9.30-10.50am)
  - Course introduction: what to expect and what's expected of you
  - What is evidence-based practice?
  - Asking clinical questions
  - Searching for the best evidence
- Practical session (with Kendy Lau, Education Librarian, 11am-12.20pm)
  - Searching for evidence using on-line databases
  - Please bring your laptop or tablet, since you will need it for the practical session.
- Background reading (required)
  - Dollaghan (2007, chapters 1–3)

### Week 2 — January 23

- Lecture
  - The architecture of a research paper
  - How research gets published
  - Interpreting study findings
- Background reading (required)
  - Dollaghan (2007, chapters 4–5)
- Reading for seminar discussion (required)
  - Jones et al. (2005)
- Optional background reading
  - Hamilton (2005b)
  - Hamilton (2005a)
  - Johnson (2006)

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<sup>4</sup><http://www.handbook.hku.hk/ug/full-time-2017-18/important-policies/copyright-and-plagiarism>

<sup>5</sup><http://www.handbook.hku.hk/ug/full-time-2017-18/student-services/assistance-to-students-with-a-disability-or-special-educational-needs>

**Week 3 — January 30**

- Lecture: Evaluating intervention evidence
  - Hierarchy of evidence
  - Randomised controlled trials (RCTs)
  - Reporting standards
  - Critically appraising evidence
- Background reading (required)
  - Dollaghan (2007, chapter 6)
- Reading for seminar discussion (required)
  - Re-read Jones et al. (2005)
  - Ward, Duke, Gneezy, and Bos (2017)
- Advanced background reading (optional)
  - Haynes, Sackett, Guyatt, and Tugwell (2006, pp. 59–65)
  - Straus, Glasziou, Richardson, and Haynes (2011, pp. 67–77)
  - Ajetunmobi (2002, pp. 58–58, 122–145)
  - Glasziou, Vandenbroucke, and Chalmers (2004)

**Week 4 — February 6** No class (Chinese New Year)**Week 5 — February 13**

- Lecture: Systematic reviews and meta-analyses
- Background reading (required)
  - Dollaghan (2007, chapter 8)
- Reading for seminar discussion (required)
  - Roberts and Kaiser (2011)
- Advanced background reading (optional)
  - Haynes et al. (2006, pp. 15–48)
  - Schlosser, Wendt, and Sigafos (2007)
  - Wilson (2011)
  - Higgins and Green (2008)
  - Borenstein, Hedges, Higgins, and Rothstein (2009)

**Week 6 — February 20**

- Lecture: Case-control studies and cohort studies
- Background reading (required)
  - Dollaghan (2007, review pp. 33–35)
- Reading for seminar discussion (required)
  - Rudolph and Leonard (2016)
- Advanced background reading (optional)
  - Ajetunmobi (2002, pp. 100–121)

**Week 7 — February 27**

- Lecture: Case studies and single-subject experimental designs (part 1)
- Background reading (required)
  - Vance and Clegg (2012)
  - Horner et al. (2005)
  - Byiers, Reichle, and Symons (2012)
- Reading for seminar discussion (required)
  - Harris and Niesen-vertommen (2000)
  - Hewat, Unicomb, Dean, and Cui (2018)
- Advanced background reading (optional)
  - Parker et al. (2005)

**Week 8 — March 6** No class (Reading week)**Week 9 — March 13**

- Lecture: Single-subject experimental designs (part 2)
- Background reading (required)
  - Tate et al. (2008)
  - Logan, Hickman, Harris, and Heriza (2008)
- Reading for seminar discussion (required)
  - Rudolph and Wendt (2014)
- Advanced background reading (optional)
  - Wilson (2011)
  - Schlosser and Sigafoos (2008)
  - Auerbach and Zeitlin (2014)
  - Gierut, Morrisette, and Dickinson (2015)



**Week 10 — March 20**

- Lecture: Diagnostic (classification) accuracy studies (part 1)
- Background reading (required)
  - Dollaghan (2007, chapter 7)
  - Klee (2008)
- Reading for seminar discussion (required)
  - Laing, Law, Levin, and Logan (2002)
- Advanced background reading (optional)
  - Ajetunmobi (2002, pp. 69–84)
  - Haynes et al. (2006, pp. 272–278)
  - Straus et al. (2011, pp. 137–167)

**Week 11 — March 27**

- Lecture
  - Diagnostic accuracy (part 2)
  - Practice-based evidence
  - Evidence from client preferences
- Background reading (required)
  - Dollaghan (2007, chapters 9–10)
- Reading for seminar discussion (required)
  - Lemoncello and Ness (2013)
  - Ammerman, Smith, and Calancie (2014)

**Week 12 — April 3**

- No class this week. Please spend this time working on Written Assignment 2.

**Week 13 — April 10**

- Lecture: Clinical guidelines, audits, implementation & barriers
  - Evidence maps
  - Clinical guidelines
  - Clinical audit
  - Implementing EBP in clinical practice—and possible barriers
- Background reading (required)
  - Schooling and Solomon (2017)
  - National Institute for Health and Clinical Excellence (2007)

- Hargrove, Griffer, and Lund (2008)
- Reading for seminar discussion (required)
  - Rosenbek (2016)
  - Metcalfe et al. (2001)

#### **Week 14 — April 17**

- Lecture: Communicating your findings in writing
  - Written Assignment 2
  - Course evaluation
  - Your questions <sup>6</sup>
- Books that will be useful in your own writing (optional)
  - Cooper (2011)
  - Nicol and Pexman (2010a)
  - Nicol and Pexman (2010b)

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<sup>6</sup>If you have questions about any aspect of what you've learned in this course, or questions about your written assignment, this is an opportunity for you to get some help. Questions must be asked in the group so that everyone can benefit from hearing them and hearing the answer. If you have a specific question, it's likely that others will have the same question.

## References

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