

## Subject Description Form

<b>Subject Code</b>	APSS 5016														
<b>Subject Title</b>	Research Methodology and Statistics for Educational Psychology														
<b>Credit Value</b>	3														
<b>Level</b>	5														
<b>Co-requisite</b>	N/A														
<b>Assessment Methods</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">100% Continuous Assessment</th> <th style="width: 30%;">Individual Assessment</th> <th style="width: 30%;">Group Assessment</th> </tr> </thead> <tbody> <tr> <td>1. Class Attendance and Participation</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>2. Presentation on critical appraisal</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">0%</td> </tr> <tr> <td>3. Research Proposal</td> <td style="text-align: center;">60%</td> <td style="text-align: center;">0%</td> </tr> </tbody> </table> <p>The grade is calculated according to the percentage assigned.</p> <p>The completion and submission of all component assignments are required for passing the subject.</p>			100% Continuous Assessment	Individual Assessment	Group Assessment	1. Class Attendance and Participation	20%	0%	2. Presentation on critical appraisal	20%	0%	3. Research Proposal	60%	0%
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1. Class Attendance and Participation	20%	0%													
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<b>Objectives</b>	<p>The Master of Educational and Child Psychology (MECP) at The Hong Kong Polytechnic University is a professional program emphasizing empirically-based professional practice and evidence-based research training. It aims at preparing students (Educational Psychologists-in-Training, EPiTs) with solid knowledge base in applied educational and child psychology, competent professional skills and appropriate professional attitudes to carry out professional work at individual, group, and systems levels. These aims form the key program outcomes. The coursework, research and practicum components are developed progressively over the 60-credit curriculum of the MECP program. This subject aims to equip students with a sound knowledge base in multi-method approaches to formulation of research problems as a scientific foundation to inform their field of study and practice. This shall contribute to the actualization of a science-practitioner-manager model of this professional program in educational and child psychology.</p>														
<b>Intended Learning Outcomes</b>	<p>A. Be exposed to and acquire initial level of competence in multi-method approaches to measurement and modeling data at both the individual and relational levels.</p> <p>B. Be competent at framing, formulating and defining problems in learning and development in the capacity of an educational psychologist-in-training.</p>														

	<p>C. Be skilful in proposing a feasible research project in educational and child psychology in the capacity of a scientist-in-training.</p>
<p><b>Subject Synopsis/ Indicative Syllabus</b></p>	<ol style="list-style-type: none"> <li>1. Research methods in lifespan development <ul style="list-style-type: none"> <li>• Measuring social, emotion, intellectual and neuro-cognitive development at the individual level</li> <li>• Bringing intergenerational relationship into quasi-experimental, natural experiment, and longitudinal designs</li> <li>• Linking developmental problem, theory, conceptual framework and experimental designs</li> <li>• Formulating a feasible research project in educational and child psychology</li> </ul> </li> <li>2. Methodological issues in child and adolescent development research <ul style="list-style-type: none"> <li>• Contextual assessment – participant observation, event sampling and experimental observation</li> <li>• Enhancing external validity in ecological studies – who should collect our data, parents or trained observers?</li> <li>• Interdependence in development – data analysis for dyadic designs</li> <li>• Multi-method measurement and multilevel modeling in developmental psychology</li> </ul> </li> <li>3. Educational psychologist as a scientist-practitioner-consultant <ul style="list-style-type: none"> <li>• Framing, formulating and defining learning and developmental problems</li> <li>• Measurement validation, data integrity, and statistical analysis</li> <li>• Situating the researcher, interpreting findings, constructing conclusions and influencing policy</li> </ul> </li> </ol>
<p><b>Teaching/Learning Methodology</b></p>	<p>All students have had completed at least one subject in undergraduate research methods and statistics and undergone an empirical project in psychology. This subject will therefore draw on their level of competence in conducting a research project by introducing them to more advanced research methods focus on problems in learning and development commonly encountered in local educational settings.</p> <p>In terms of learning approaches, each student will be required to:</p> <ol style="list-style-type: none"> <li>1. Sample and rationalize from all available individual measurements relevant to his chosen topic of investigation but add to it relational level measurements appropriate for contextualizing the problem at hand.</li> <li>2. Acquire knowledge on data capturing, management and statistical modeling, including both qualitative and quantitative methods, based on diverse types and nature of data to be collected in their respective research projects.</li> <li>3. Write up a feasible research proposal meeting quality criteria set out for the Dissertation subjects.</li> </ol>

Assessment Methods in Alignment with Intended Learning Outcomes	Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed (Please tick as appropriate)		
			A	B	C
	1. Class Attendance and Participation	20%	✓	✓	✓
2. Presentation on critical appraisal	20%	✓	✓		
3. Research Proposal	60%	✓	✓	✓	
Total	100 %				
	<p>1 <b><i>Class participation and Contribution.</i></b> Class participation will be rated for each class based on preparation and participation in class discussion and activities. Students (Educational Psychologists-in-Training, EPiTs) are required to be present for <b>all</b> class meetings, and to notify subject teacher(s) concerned if he/she expects to miss class of psycho-educational assessment. Unexcused absences or coming late will reduce the grade. Make-up class in alternate format, say video-taped lecture, should be arranged to ensure rigorous training in assessment. Students will also be required to orally present their research proposal in class.</p> <p>2 <b><i>Presentation on critical appraisal.</i></b> Students will select a research study using one of the designs covered in class, and critically appraise the research, following critical appraisal guidelines. Students will be required to orally present their critical appraisal in class.</p> <p>3 <b><i>Research proposal.</i></b> Students (EPiTs) are required to complete a research proposal which consists of:</p> <p>3.1 The research question and its significance</p> <p>3.2 Literature review</p> <p>3.3 Method including design, participants, measures and procedures</p> <p>3.4 Data analysis</p>				
Student Study Effort Required	Class contact:				
	▪ Lecture		26 Hrs.		
	▪ Writing Lab and Seminar		13 Hrs.		
	Other student study effort:				
	▪ Private study		30 Hrs.		
	▪ Preparation for class presentation and research proposal		30 Hrs.		
	Total student study effort		99 Hrs.		

<b>Medium of Instruction</b>	English
<b>Medium of Assessment</b>	English
<b>Reading List and References</b>	<p><b><u>Essential</u></b>  Conrad, C. &amp; Serlin, R.C. (2006). (Eds.). <i>The Sage handbook for research in education: Engaging ideas and enriching inquiry</i>. Thousand Oaks, Calif: Sage Publications.  Creasey, G.L. (2006). <i>Research methods in lifespan development</i>. Boston: Pearson Education, Inc.  Erchul, W.P., &amp; Sheridan, S.M. (2008). (Eds.). <a href="#"><u>Handbook of research in school consultation</u></a>. NY: Lawrence Erlbaum Associates.  Hektner, J., Schmidt, J.A., &amp; Csikszentmihalyi, M. (2007). <i>Experience sampling method: Measuring the quality of everyday life</i>. Thousand Oaks, Calif: Sage Publications.  Teti, D.M. (Ed.). (2005). <i>Handbook of research methods in developmental science</i>. Malden, MA: Blackwell Publishing.</p> <p><b><u>Supplementary</u></b>  Barbour, R.S. (2007). <i>Doing focus group</i>. London: Sage Publications.  Bergman, L.R., Magnusson, D., &amp; El-Khouri, B.M. (2003). <i>Studying individual development in an interindividual context: A person-oriented approach</i>. NJ: Lawrence Erlbaum.  Chan, C.C., &amp; Ho, W.C. (2008). An ecological framework for evaluating relationship-functional aspects of youth mentoring. <i>Journal of Applied Social Psychology</i>, 38, (4), 837-867.  Chan, C.C. &amp; Chan, K. (2006). Program effectiveness, process outcomes and sustainability of health promotion interventions in Hong Kong: Applying the RE-AIM framework. <i>Journal of Psychology in Chinese Societies</i>, 7(1), 5-27.  Chan, C.C., Luis, B.P.K., Chow, C.B., Cheng, J.C.Y., Wong, T.W., Chan K. (2003). Unintentional residential child injury surveillance in Hong Kong. <i>Journal of Paediatrics and Child Health</i>, 39(6), 420-427.  Chan, C.C., Luis, B.P.K., Chow, C.B., Cheng, J.C.Y., Wong, T.W., Chan, K., &amp; Tsui, S. (2001). Validating narrative data on residential child injury. <i>Journal of Safety Research</i>, 32, 377-389.  Coll, C.G., Bearer, E.L., Lerner, R.M. (Eds.). (2004). <i>Nature and nurture: The complex interplay of genetic and environmental influences on human behaviour and development</i>. Mahwah, NJ: Lawrence Erlbaum.  Constas, M.A., &amp; Sternberg, R.J. (2006). (Eds.). <i>Translating theory and research into educational practice: developments in content domains, large-scale reform, and intellectual capacity</i>. Mahwah, NJ : Lawrence Erlbaum Associates.  Denzin, N., &amp; Lincoln, Y.S. (2005). (Eds.). <i>The Sage handbook of qualitative research</i>. Thousand Oaks, Calif: Sage Publications.  Eid, M., &amp; Diener, E. (2006). (Eds.). <i>Handbook of multimethod measurement in psychology</i>. Washington, DC: American Psychological Association.  Fountain, J. (2004). <i>Focus Assessment Studies: A Qualitative Approach to Data Collection</i>. NY: United Nations.</p>

- Granott, N., & Parziale, J. (2002). *Microdevelopment: Transition processes in development and learning*. UK: Cambridge University Press.
- Jessor, R., Colby, A., & Shweder, R.A. (1996). *Ethnography and Human Development: context and meaning in social inquiry*. Chicago: University of Chicago Press.
- Mishler, E. (1986). *Research Interviewing: Context and Narrative*. Cambridge: Harvard University Press.
- Richards, L. (2005). *Handling qualitative data: a practical guide*. London: SAGE Publications.

### **Recommended Academic and Professional Journals**

1. *American Psychologist*
2. *British Journal of Educational Psychology*
3. *Canadian Journal of Education*
4. *Child Development*
5. *Journal of Educational and Child Psychology, and DCEP Newsletter*, published by Division of Educational and Child Psychology, British Psychological Society
6. *Journal of Educational Psychology*
7. *Journal of Psycho-educational Assessment*
8. *Journal of School Psychology*
9. *Psychological Assessment*
10. *School Psychology International*
11. *School Psychology Quarterly*
12. *School Psychology Review*
13. *The Psychologist*, a monthly magazine published by British Psychological Society
14. 台灣(中國)測驗學會期刊 *Periodicals of Taiwan Psychological Tests (Complicated Chinese)*
15. 中國心理測驗學報 *Journal of Chinese Psychological Tests (Simplified Chinese)*

### **Required Materials**

1. DVD/VHS videotapes for preview of test administration sessions
2. Stopwatch
3. Tape recorder for test administration and scoring
4. Test protocols handed out in class or borrowed from Test Library of Department of Applied Social Sciences (APSS) should be kept in strict confidence
5. Large ring binders for organizing subject materials are strongly recommended.
6. Supplementary texts are placed in Reserved Section at HKPolyU Library. Some additional required readings will be placed on electronic reserves via WebCT or email attachment throughout the semesters.

### **Attachment: Recommended Readings on Test Administration and Scoring**

#### **Manuals**

*Adaptive Behaviour Assessment System for Age 6- 17, Second Edition (ABAS-*

*II*): Examiner's Manual, USA: Western Psychological Services.

Oakland, T. (2000). *Multigroup confirmatory factor analysis for the Adaptive Behaviour Assessment System, Parent Form for Ages 5- 21 (ABAS-II)*. USA: Western Psychological Services.

盧台華、陳心怡 (修訂者).(2008). 《適應行為評量系統 II (6至 17歲兒童版) 》: 中文指導手冊. 台北: 中國行為科學社. [Chinese original manuscript, translated English title: *Adaptive Behaviour Assessment System II (Age 6- 17), Second Edition (ABAS-II, Taiwan)*: Examiner's Manual, (Taiwan Chinese Edition), Taipei, Taiwan: Chinese Behavioral Science Corporation.]

*Wechsler Intelligence Scales for Children, Third Edition (WISC-III, Taiwan)*: Test Administration and Scoring Manual

*Bayley Scales of Infant and Toddler Development, Third Edition, (Bayley-III)*: Test Administration and Scoring Manual, Motor Scale Kit, all Accessories, Combo Tests, and Screening Test, U.S.A.

*British Ability Scales, Third Edition, (BAS-III)*: Test Administration and Scoring Manual, U.K.

*Chinese Cognitive Abilities Tests, First Edition (CCAT-I)*: Examiner's Manual, Norm-referenced in Chinese mainland (Simplified Chinese version). Beijing, China: Institute of Psychology, China Academy of Sciences.

*Cognitive Assessment System, Third Edition, (CAS-II)*: Test Administration and Scoring Manual, U.K.

*Hong Kong-Wechsler Intelligence Scales for Children, First Edition (HK-WISC-I)*: Test Administration and Scoring Manual (Hong Kong Cantonese version), Government of Hong Kong Special Administrative Region, China.

*Hong Kong-Wechsler Intelligence Scales for Children, Fourth Edition (HK-WISC-IV)*: Test Administration and Scoring Manual, (*publisher pending*).

*Kaufman Assessment Battery for Children, Second Edition*: Test Administration and Scoring Manual, USA.

*Merrill-Palmer-Revised Scales of Development, Revised Edition (Merrill-Palmer-R)*: Test Administration and Scoring Manual, all Manipulatives, Forms, & Books, USA.

*Stanford-Binet Intelligence Scales, Fifth Edition (SB-5)*: Test Administration and Scoring Manual, all Manipulatives, Forms, and Books, Riverside Publishing: Itasca, IL.

Roid, G. H. (2003). *Stanford-Binet Intelligence Scales: Fifth Edition Examiner's Manual*. Riverside Publishing: Itasca, IL.

Roid, G. H. (2003). *Stanford-Binet Intelligence Scales: Fifth Edition Technical Manual*. Riverside Publishing: Itasca, IL.

*Tests of Cognitive Abilities*: Examiner's Manual, Taiwan edition. Taipei, Taiwan: National Taiwan Normal University.

*Test of Nonverbal Intelligence, Third Edition (TONI-3, Taiwan)*: Examiner's Manual. (Complicated Chinese version). Taipei, Taiwan: Taiwan Psychological Publishing Company Limited.

*Vineland-II Survey Form*, Examiner's Manual.

*Wechsler Adult Intelligence Scales, First and Third Edition (WAIS, I & III)*:

Test Administration and Scoring Manual, U.S.A.

*Wechsler Adult Intelligence Scales, Revised Edition (WAIS-R, Taiwan):* Test Administration and Scoring Manual (Taiwan Chinese Edition), Taipei, Taiwan: Chinese Behavioral Science Corporation.

*Wechsler Intelligence Scales for Children, Third Edition (WISC-III, Taiwan):* Test Administration and Scoring Manual (Taiwan Chinese Edition), Taipei, Taiwan: Chinese Behavioral Science Corporation.

Wechsler, D. (2003). *WISC-IV Administration and Scoring Manual*. Psychological Corporation: San Antonio, TX.

Wechsler, D. (2003). *WISC-IV Technical and Interpretive Manual*. Psychological Corporation: San Antonio, TX.

*Wechsler Intelligence Scales for Children, Fourth Edition (WISC-IV, Chinese mainland):* Test Administration and Scoring Manual (Simplified Chinese version), publisher designated by Beijing Normal University, China.

Flanagan, D.P., & Kaufman, A.S. (2004). *Essentials of WISC-IV<sup>®</sup> Assessment*. New York: Wiley.

Sattler, J.M., & Dumont, R. (2004). Interpreting the WISC-IV. In J.M. Sattler & R. Dumont, *Assessment of Children: WISC-IV and WPPSI-III Supplement* (pp. 113-152). San Diego, CA: Sattler Publishing.

Williams, P.E., Weiss, L.G., & Rolfhus, E. (2003). *WISC-IV technical report #1: Theoretical model and test blueprint*. San Antonio, TX: Psychological Corporation.

Williams, P.E., Weiss, L.G., & Rolfhus, E. (2003). *WISC-IV technical report 21: Psychometric properties*. San Antonio, TX: Psychological Corporation.

*Wechsler Preschool and Primary Scale of Intelligence, Third Edition (WPPSI-III, Taiwan):* Test Administration and Scoring Manual (Complicated Chinese version), Taipei, Taiwan: Chinese Behavioral Science Corporation.

Sattler, J.M., & Dumont, R. (2004). *Assessment of Children: WISC-IV<sup>®</sup> and WPPSI-III Supplement*. San Diego, CA: Jerome M. Sattler Publishing.

Mathur, N. & Woodcock, R. (2001). *Woodcock-Johnson III Tests of Cognitive Abilities: Examiner's manual*. Riverside Publishing: Itasca, IL.

McGrew, K. & Woodcock, J (2001). *Woodcock-Johnson III Tests of Cognitive Abilities: Technical Manual*. Riverside Publishing: Itasca, IL.

Read, B.G., & Schrank F.A. (2003). Qualitative analysis of Woodcock-Johnson III test performance. In F.A. Schrank & D.P. Flanagan (Eds.), *WJ III clinical use and interpretation: Scientist-practitioner perspectives* (pp.47-91). San Diego, CA: Academic Press.

Schrank, F.A., Flanagan, D.P., Woodcock, R.W., & Mascolo, J.T. (2002). *Essentials of WJIII<sup>TM</sup> Cognitive Abilities Ass*