

**YEAR 3**

**SEMESTER 2**

# **Four-Year B.Ed. Course Manual**

## **Pedagogy (Differentiated Assessment for Early Grade)**





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# FOREWORD

These Initial Teacher Education course manuals were developed by a team consisting of members from Colleges of Education and four universities namely the University of Ghana, Kwame Nkrumah University of Science and Technology, University of Education, Winneba, and University for Development Studies. This team was originally constituted by the National Council for Tertiary Education (now the Ghana Tertiary Education Commission) in 2019 to support the delivery of the new B.Ed. curriculum with assistance from T-TEL and UK Aid. The revision, finalization and printing of these manuals took place in 2021 with support from T-TEL and Mastercard Foundation.

The course manuals have been produced for use as general guides for the delivery of the new four-year B.Ed. curriculum in Colleges of Education in collaboration with their affiliated universities. They are designed to support student teachers, tutors, and lecturers in delivering a complete B.Ed. course for training student teachers which meets the requirements of the National Teachers' Standards, enabling them to teach effectively in basic schools.

The first section of the manuals is focused on the course information and vision for the B.Ed. curriculum. The second section presents the course details, goal for the subject or learning area, course description, key contextual factors as well as core and transferable skills and cross-cutting issues, including equity and inclusion. The third section is a list of course learning outcomes and their related learning indicators. The fourth section presents the course content which is broken down into units for each week, the topic and sub-strands and their related teaching and learning activities to achieve the learning outcomes and the teaching and learning strategies. This is followed by course assessment components in section five. Each manual contains a list of required reading and references as well as teaching and learning resources. The final section presents course related professional development for tutors and lecturers to be able to use each section of the manual.

Field instructions to guide Supported Teaching in School are integrated into the course manuals to provide the student teacher with guidance in developing teaching throughout the entire period of study to be able to meet the requirements of the National Teachers' Standards (NTS) and the National Teacher Education Curriculum Framework (NTECF). To ensure maximum benefit the course manuals should be used in addition to other resources such as the NTS, NTCEF, National Teacher Education & Assessment Policy and the National Teacher Education Gender Equality and Social Inclusion (GESI) Strategy and Action Plan.. This will help to ensure that student teachers' learning is integrated within the wider teacher education policy framework.

**Professor Mohammed Salifu Director General, Ghana Tertiary Education Commission**

## ACKNOWLEDGEMENTS

The course manuals were developed through the collaborative efforts of a team of individuals from Colleges of Education, University of Ghana, Kwame Nkrumah University of Science and Technology, University of Education, Winneba, and University for Development Studies. They were produced in association with the Ghana Tertiary Education Commission of the Ministry of Education, Ghana.

A participatory team approach was used to produce this set of resources for tutors/lecturers, mentors, and student teachers. We are grateful to the specialists who contributed their knowledge and expertise.

Special thanks to Professor Jophus Anamuah-Mensah - T-TEL Key Advisor, Dr. Eric Daniel Ananga - T-TEL Key Advisor for Curriculum reform and Beatrice Noble-Rogers who provided key editorial, review and content input and facilitated the process of drafting and finalising the course manual.

Patricia Appiah-Boateng and Gameli Samuel Hahomene, served as typesetting and formatting coordinators and designed and produced the illustrations, tables, and other graphics which appear in the pages. They spent time and effort designing and redesigning the graphic layout and producing the camera-ready copy resulting in a set of materials that are easy to use, read, and reference.

Thanks also goes to all T-Tel staff members who worked to support production of these course manuals, particularly Beryl Opong-Agyei and Gideon Okai. Their frankness and co-operative attitude complimented the team approach used to produce this manual.

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In addition to all the staff who participated visibly in the development of these materials we would like to acknowledge all those people from the many colleges of education and universities in which we have worked who have, directly or indirectly, shared their views on the curriculum with us.

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# INTRODUCTION TO COURSE MANUALS

Welcome to this B.Ed. Course manual.

Following the accreditation of the B.Ed. by the national accreditation Board with its recognition as a world class teacher education curriculum, the decision was taken to support effective implementation through the development of course manuals. The course manuals provide tutors and lecturers with the materials necessary to support teaching each of the B.Ed. courses. The manuals adhere directly to, and emphasise, the principles and standards set out in the NTS, NTECF and in the B.Ed. and will help ensure operationalising the Government's teacher education reform Policy.

The manuals serve the following purposes:

- they are the key educational agreements between the training institution and the student teachers. In this way student teachers know what the expectations are for them and for the training they will receive.
- they lay out the course outcomes, content, strategies, and assessment, thereby providing direction to and consistency in training and B.Ed. implementation among tutors across the country.
- they are explicit documents that provide other institutions with information on which to base transfer/ articulation decisions.

Specifically, they also:

- support coherent lesson planning and teaching which will enable student teachers to achieve the NTS and become good teachers who ensure all pupils' learning whilst offering tutors the flexibility for adaptation for local needs and contexts.
- Provide a lesson by lesson overview of the course, building on and developing the material in the course specifications.
- Inform tutors, student teachers and others working with student teachers about:
  1. What is to be taught and why.
  2. how it can be taught.
  3. how it should be assessed.
- Provide opportunities for student teachers to develop and apply knowledge during supported teaching in school, creating a strong bond between learning in school and in the training institution.
- Reflect the stage of student teacher development, set out in the model for progress across the four years of the B.Ed.
- Can be used as self-study tools by student teachers.
- Ensure that all information necessary to inform teacher training is in one place (serves as reference document).
- The manuals are the basis of the codes and university professional development sessions to ensure Principals, tutors, lecturers and heads of department are fully familiar with the details of: courses, outcomes, content, approaches, assessments and lessons.

Who are course manuals for:

- College of Education Tutors
- Teacher Education University Lecturers
- Student Teachers
- Mentors and Lead Mentors
- All Those with An Interested In Teacher Education.

## USING THIS MANUAL

Writers of the manuals engaged widely with colleagues in each subject area at each stage of development. Besides, writers envisaged themselves in varied contexts as they wrote, to suggest methodologies and strategies for teaching the strands which would ensure student teachers are enabled to achieve the learning outcomes. In view of our commitment to creativity, problem solving, collaboration and to lifelong learning, we expect that individual tutors will “own” their manuals and become user-developers. Lessons in the manuals will be strands for weekly Pd meetings where tutors/lecturers will situate the lessons in the contexts of their colleges and their student teachers, to maximize the benefits.

It is also expected that tutors will model the best pedagogic practices for student teachers. Key among such practices is the communication of the importance of having a personal teaching philosophy. We expect that tutors and lecturers will explicitly communicate their personal teaching philosophies to their student teachers during the first meeting of every course. In preparation for this, we suggest you set out your personal teaching philosophy and how it will be demonstrated in your teaching using, or adapting, the sample sentence introductions below.

My teaching philosophy is .....

In view of this philosophy, I will facilitate this course by/through .....

AUTHORS

## PEDAGOGY 1

### Pedagogy I

It has been observed that most teachers in Ghanaian early grade school settings use some forms of assessment strategies. Much of the assessment processes places emphasis on traditional assessment modes and objective based assessment. However, there are some assessment processes such as authentic or performance assessment, which is most appropriate to use at the early grade level, that requires some more attention in order to cater for the needs of all children. This course is thus designed to ensure that early grade student teachers are fully equipped to use differentiated assessment procedures that respect early grade learners diversity.

<b>Course Title</b>	DIFFERENTIATED ASSESSMENT FOR EARLY GRADE						
<b>Course Code</b>	<b>PDE 221</b>	<b>Course Level: 200</b>	<b>Semester 2</b>			<b>Credit value: 3</b>	
<b>Pre-requisite</b>	<b>Inclusive School-based Inquiry, Differentiated Learning and Curriculum Planning in early grade</b>						
<b>Course Delivery Modes</b>	<b>Face-to-face: [v]</b>	<b>Practical activity: [ ]</b>	<b>Work-Based Learning: [v]</b>	<b>Seminars: [ ]</b>	<b>Independent Study: [v]</b>	<b>e-learning opportunities: [ ]</b>	<b>Practicum: [ ]</b>
<b>Course Description for significant learning (indicate NTS, NTECF, BSC GLE to be addressed)</b>	The course is designed to expose early grade student teachers to basic concepts and principles of assessment in schools. It is also structured to enable them identify and apply the various forms and types of assessment to address the needs of diverse early grade learners in order to meet the grade level expectations and national assessment benchmarks. Student teachers will also be guided to examine various processes involved in planning and administering assessment in inclusive early grade learning settings and interpret results for instructional decision making. Current naturalistic or authentic assessment processes, assessment tools and building digital and manual portfolios will be explored. In this course, student teachers will be engaged using varying interactive techniques such as demonstrations, activities and discussions. They will be assessed through, projects and assignments among others. These are meant for early grade student teachers to acquire a repertoire of knowledge and skills to enable them apply appropriate techniques, processes and procedures to gather relevant data from differently abled early grade learners with diverse needs in inclusive and multi-grade setting in order to support their learning. The course will also explore issues within the context of Ghanaian core values, critical thinking, honesty, commitment and passion, creativity and informed citizenry, digital literacy as well as and lifelong learning ( <i>NTS 1c, 1e, 1f, 1g, 2a/NTECF</i> ).						
<b>Course Learning Outcomes</b>	<b>On successful completion of the course, student teachers will be able to:</b>				<b>Indicators</b>		
	1. demonstrate knowledge and understanding of the principles of differentiated assessment and basic concepts in assessment such as assessment, test, measurement and evaluation and the purposes of assessment ( <i>NTECF; NTS 3k, 3l, 3p</i> ).				1.1 Examine the meaning and principles of differentiated assessment 1.2 Distinguish between the concepts assessment, test, measurement, evaluation and explain the scales of measurement. 1.3 Explain the general principles of assessment.		
	2. demonstrate understanding and use of assessment for learning/of learning and as learning through projects ( <i>NTECF; NTS 3k, 3l, 3m, 3p</i> ).				2.1 Explain the purposes of assessment 2.2 Describe and demonstrate the use of assessment for learning/ of learning and as learning through projects.		
	3. demonstrate understanding of the grade level expectations and assessment benchmarks for early grade schools in Ghana( <i>NTECF; NTS 3g, 3k, 3l, 3p</i> ).				3.1 Distinguish between the types of assessment. 3.2 Discuss the barriers/weaknesses of continuous assessment and how they can be addressed 3.3 Discuss the grade level expectations and assessment benchmarks for early grade in Ghana.		
	4. demonstrate understanding and use of comprehensive and appropriate learning objectives and outcomes in relation to the various domains of learning in learning plans for early grade learners ( <i>NTECF; NTS 3k, 3l, 3p</i> ).				4.1 Formulate comprehensive and appropriate learning objectives and outcomes in line with the affective domain of learning in learning plans for early graders. 4.2 Formulate comprehensive and appropriate learning objectives and outcomes in line with the psychomotor domain of learning in learning plans for early graders.		

	5 demonstrate understanding, planning and developing authentic/ performance assessment tasks, considering gender and learners with diverse strengths in inclusive and multi-grade classrooms during supported teaching in schools <b>(NTECF; NTS 3k, 3l, 3p)</b> .	5.1 Observe and evaluate the use of authentic/performance assessment tasks by their mentors during supported teaching in schools. 5.2 Design authentic/performance assessment tasks for early grade learners in inclusive and multi-grade classrooms during supported teaching in schools.		
	6. demonstrate understanding and use of norm-referenced and criterion-referenced modes of interpreting tests and manage data gathered on various aspects of the learners <b>(NTS 3p)</b> .	6.1 Collect data on various aspects of learners with different tools, analyse and use results to support learning of diverse learners during supported teaching in schools. 6.2 Design differentiated assessment tasks for learners with SEND in inclusive settings during supported teaching in schools. 6.3 Demonstrate how norm-referenced and criterion-referenced modes of interpreting tests are used.		
	<b>Units</b>	<b>Topics:</b>	<b>Sub-topics (if any):</b>	<b>Teaching and learning activities to achieve learning outcomes</b>
<b>Course Content: Differentiated Assessment in Basic Schools</b>	<b>1</b>	Definition of terms and principles and nature of differentiated assessment	The concept assessment and differentiated assessment; test; measurement and evaluation; scales of measurement	Tutor-led discussions on definition and nature of assessment; Individual and group presentations on nature of assessment; Concept mapping/cartooning on meaning and nature of assessment.
	<b>2</b>	Principles and purposes of assessment in early grade	General principles of assessment, purposes of assessment; assessment of learning (AoL), assessment as learning (AaL), assessment for learning (AfL);	Teacher-led discussion on the meaning and principles of assessment; Individual and group presentations on purposes of assessment; Individual and group projects on classroom activities that suit assessment of learning (AoL), assessment as learning (AaL), and assessment for learning (AfL).
	<b>3</b>	Types of assessment	Formative assessment; summative assessment; diagnostic assessment; authentic assessment; types of formative and summative assessment; characteristics, merits and demerits of continuous assessment; school-based assessment; standards-based assessment; national assessment benchmarks (EGRA, EGMA); grade level expectations for early grade learners	Tutor-led discussion on types of assessment; Group presentation and discussion on characteristics, merits and demerits of continuous assessment; Concept mapping/cartooning on school-based, standards-based assessments, and national assessment benchmarks; Tutor-led discussion on grade level expectations for basic education in Ghana.
	<b>4</b>	Taxonomies of educational objectives	The concept of learning outcomes; instructional objectives; learning objectives; cognitive domain objectives, <b>affective domain objectives</b> and <b>psychomotor domain objectives</b> ; the profile dimensions	Tutor-led and student-led discussions on the concept of learning outcomes and types of objectives; Individual and group presentations on cognitive, affective and psychomotor domains; Individual and group projects to design taxonomies of educational objectives.

	5	Assessment procedures for early grade inclusive classrooms	Designing authentic/performance assessment; principles of fair assessment; GES approved assessment inventories; types of observation, checklists, rating scales, clinical interviews, conversation for assessing various skills across the domains of learning; gallery work; project development; task analysis; building of portfolios	Concept mapping/cartooning for meaning and characteristics of the types of authentic or performance assessment; Group presentations of how to plan and design authentic/performance assessment tasks for inclusive and multi-grade classrooms; tutor-led discussion on identification of various across the domains of early grade learners and designing inventories to gather information.
	6	Data presentation and Interpretation of authentic assessment data	Norm-referenced and criterion-referenced interpretation of data gathered across domains of learning; validity and reliability issues; types of feedback and how to use feedback.	Tutor-led discussion on interpretation of results from norm-referenced and criterion-referenced tests; analysis and presentation of data using appropriate applications; Student-led demonstration on how norm-referenced and criterion-referenced modes of interpreting results are used
<b>Course Assessment</b> (Educative assessment: of, for and as learning)	<p><b>Component 1: Subject Portfolio Assessment (30% overall score)</b></p> <ul style="list-style-type: none"> <li>Selected items of students work (3 of them -10% each) = 30%</li> <li>Midterm assessment = 20%</li> <li>Reflective Journal = 40%</li> <li>Organisation of the subject portfolio = 10% (how it is presented /organised)</li> </ul> <p>A group project on activities on assessment (i) for (ii) of and (iii) as learning for early graders; learning indicators for the activities and develop rubrics for scoring.          (Core skills to be developed: critical thinking)          Assesses Learning Outcomes: CLO 1, CLO 2 and CLO 3 (Units 1, 2 and 3)  <b>NTS addressed:</b>          2a: Demonstrates familiarity with the education system and key policies guiding it.          2b: Has comprehensive knowledge of the official school curriculum, including learning outcomes          3k: Integrates a variety of assessment modes into teaching to support learning.          3n: Keeps meaningful records of every learner and communicates progress clearly to parents and learners.          3o: Demonstrates awareness of national and school learning outcomes of learners.          3p: Uses objective criterion referencing to assess learners.</p> <hr/> <p><b>Component 2: Subject Project: (30% overall semester score)</b></p> <ul style="list-style-type: none"> <li>Introduction, a clear statement of aim and purpose of the project = 10%</li> <li>Methodology: what the student teacher has done and why to achieve the purpose of the project = 20%</li> <li>Substantive or main section = 40%</li> <li>Conclusion = 30%</li> </ul> <p>(core skills to be developed: critical thinking, respect for diversity, digital literacy, collaboration and communication, personal development)          Assesses Learning Outcomes: CLO 4, 5 and 6 (Unit 4, 5 and 6)  <b>NTS addressed:</b>          1a: Critically and collectively reflects to improve teaching and learning.          2a: Demonstrates familiarity with the education system and key policies guiding it.          2b: Has comprehensive knowledge of the official school curriculum, including learning outcomes          3k: Integrates a variety of assessment modes into teaching to support learning.          3n: Keeps meaningful records of every learner and communicates progress clearly to parents and learners.          3o: Demonstrates awareness of national and school learning outcomes of learners.          3p: Uses objective criterion referencing to assess learners.</p>			

	<p><b>Component 3:</b> End of semester examinations = 40%</p> <p>Summary of Assessment Method: End of semester examination on units 2, 3, 4 and 6 (core skills to be developed: critical thinking, personal development)</p> <p>Assesses Learning Outcomes: CLO 2, 3, 4, 6 (Units 2, 3, 4, 6)</p>
<b>Teaching and learning resources</b>	<ol style="list-style-type: none"> <li>1. TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>2. T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>3. Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>4. The iBox (CENDLOS)</li> <li>5. YouTube videos</li> </ol>
<b>Required references</b>	<p>Asamoah-Gyimah, K. &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P. &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Bagnato, S. J. (2007). <i>Authentic assessment for early childhood intervention: Best practices</i>. New York, NY: Guilford Press.</p>
<b>Additional Reading List<sup>1</sup></b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology (2nd ed.)</i>. Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing (6th Ed.)</i>. New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research; Quantative, qualitative, and mixed approaches</i>. USA: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students (3rd ed.)</i>. New Jersey: Prentice-Hall.</p> <p>Tamakloe, E. K. Amedahe, F. K., Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>

# LESSON 1

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1	2	3	4	5	6	7	8	9	10	11	12
<b>Title of Lesson</b>	Principles and nature of differentiated assessment											<b>Lesson Duration</b>	<b>3 Hours</b>			
<b>Lesson description</b>	The lesson is meant to prepare student teachers to demonstrate knowledge and understanding of the principles of differentiated assessment and basic concepts in assessment such as assessment, testing, measurement and evaluation and the purposes of assessment. It aims to assist them to apply these principles to assesses students in different context and prepare them for the Junior High School education. <b>This first lesson introduces student teachers to the course learning outcomes and the 3 assessment components of the course.</b>															
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers have observed their mentors assessing students during supported teaching in schools.															
<b>Possible barriers to learning in the lesson</b>	Student teachers may not have been practically involved in assessment during the STS and may have misconceptions about assessment. The have also taken a course in inclusive school-based inquiry and psychology to enable them appreciate the differences in learner characteristics and interest and readiness.															
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face</b> [ v ]	<b>Practical Activity</b>	<b>Work-Based Learning</b>	<b>Seminars</b> [ v ]	<b>Independent Study</b> [ v ]	<b>e-learning opportunities</b> [ v ]	<b>Practicum</b>									
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<b>Face-to-face</b> – Discussion; Concept mapping/cartooning on meaning and nature of assessment. <b>e-learning opportunities</b> – the use of on-line resources and digital devices. <b>Seminars:</b> student and /or tutor led discussion and reflections from STS experiences. <b>Independent study:</b> Individual and group presentations on nature of assessment															
<ul style="list-style-type: none"> <li><b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li><b>Write in full aspects of the NTS addressed</b></li> </ul>	Demonstrate an understanding of the principles and concepts of differentiated assessment in early grade schools ( <b>NTS 3k, 3l, 3p; NTECF p.46</b> ).															
<ul style="list-style-type: none"> <li><b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li><b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>				<b>Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?</b>								
	CLO 1. Demonstrate knowledge, understanding of basic principles and concepts in differentiated assessment such as assessment, testing, measurement and evaluation and the purposes of assessment ( <b>NTS 3k, 3l, 3p; NTECF p.46</b> ).			<ul style="list-style-type: none"> <li>Analyse the principles of differentiated assessment</li> <li>Explain the characteristics of basic concepts such as assessment, test, measurement, and evaluation, as well as the purposes of assessment.</li> <li>Differentiate among assessment, test, measurement, and evaluation.</li> </ul>				Communication skills: through individual and group presentations Digital literacy: the use of on-line resources and digital devices. Personal development: Through presentation and developing of arguments. Equity and inclusivity: using various types of groups mixed								

			gender/ability etc and gender sensitive interactive strategies and illustrations in assessment.	
<b>Topic Title:</b> Principles and nature of differentiated assessment	<b>Sub-topic</b>	<b>Stage/time</b>	<b>Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.</b>	
			<b>Teacher Activity</b>	
			<b>Student Activity</b>	
	Introduction to the course manual	20 minutes	<b>Face-to-face:</b> Introduce student teachers to the Course Manual and discuss the various components including assessment procedures	<b>Face-to-face:</b> Participate in the discussion of various components of the course manual, take opportunity to ask questions about the Course Manual including assessment procedures. Outline their expectations and views about the mathematics course.
	Meaning and principles of differentiated assessment	20 minutes	Reviews RPK through questioning on how they observed their mentors assess learners during their STS and why assessment should be differentiated.	Share experiences on how mentors assessed learners during STS. Provide responses on why assessment should be differentiated drawing on their STS experiences and knowledge in psychology.
Identification and explanation of characteristics and basic concepts	20 minutes	Guide student teachers to use their phones to search for the meaning of differentiated assessment or guide them by providing prompts from their supported teaching experiences.  Let tutors think-pair and share Their views on the principles of differentiated assessment.	Use phones to search for the meaning of differentiated assessment or reflect on prompts provided or respond  Pairs share their views on principles of differentiated assessment	
Differences among assessment, test, measurement, and evaluation.	1 hour	Use concept cartoons to initiate a discussion on meaning and characteristics of concepts such as assessment, test, measurement, and evaluation, as well as the purposes of assessment.	Engage in discussion of concepts.	
		<b>Independent learning</b> Student teachers are assigned into four groups (mixed gender/ability) for group to research on assessment, test, measurement, and evaluation and present in class	<b>Independent learning</b> Student teachers participate actively in groups and present their report.	
Age appropriate differentiated assessment	50 minutes	<b>Seminar:</b> Use pyramid discussions to generate interactions on purposes of age appropriate	<b>Seminar:</b> Shares experiences with based on STS experiences	

	and purposes of assessment		assessment citing illustrations from STS experiences.	
	Closure	10 minutes	Review key concepts through questions and answers and summarise lesson	Participate in review of lesson by responding to questions.
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p><b>In-lesson Assessment:</b> individual and group presentation on principles and nature of differentiated assessment, conceptual distinctions and purposes of assessment.</p> <p>CLO 1</p> <p>NTS</p> <p>h) Sets meaningful tasks that encourages learner collaboration and leads to purposeful learning.</p> <p>i) Explains concepts clearly using examples familiar to students.</p> <p>j) Produces and uses a variety of teaching and learning resources including ICT, to enhance learning.</p>			
<b>Instructional Resources</b>	<ol style="list-style-type: none"> <li>1. TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>). T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>2. Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>3. The iBox (CENDLOS)</li> <li>4. YouTube</li> </ol>			
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P. &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>			
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>			
<b>CPD needs</b>	E-Assessment in Early grade Schools . Principles and nature of differentiated assessment			

## LESSON 2

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1	2	3	4	5	6	7	8	9	10	11	12
<b>Title of Lesson</b>	<b>Principles, forms and purposes of assessment for/of and as learning</b>				<b>Lesson Duration</b>	<b>3 Hours</b>										
<b>Lesson description</b>	The lesson seeks to explore the principles and purpose of different forms of assessment of early grade school learners as well as managing transition from Early grade through to the junior high school level. The purpose is to assist the students to appreciate all the principles that guides how assessment is conducted and how it is used to support the teaching and learning process especially for students with diverse needs.															
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers have observed their mentors using different forms of assessment during supported teaching in schools. They have also taken a lesson in basic concepts of assessment.															
<b>Possible barriers to learning in the lesson</b>	Misconceptions about assessment															
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [v]</b>	<b>Practical Activity [ v ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ v ]</b>	<b>Independent Study</b>	<b>e-learning opportunities</b>	<b>Practicum</b>									
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face:</b> Discussion, lecturette, think, pair share should be used in facilitating lessons.</p> <p><b>Seminar:</b> Student teachers work on topics either individually or in groups for presentations on factors that influence curriculum development in Ghana</p> <p><b>Practical activity:</b> Students are asked to study the B4-B6 curriculum and identify the various assessment components.</p>															
<b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description. Write in full aspects of the NTS addressed</b>	Demonstrate knowledge and understanding of principles and purposes of assessment. (NTECF; NTS 3k, 3l, 3m, 3p).															
<b>Learning Outcome for the lesson, picked and developed from the course specification Learning indicators for each learning outcome</b>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>				<b>Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?</b>								
	CLO 2. demonstrate knowledge, understanding and use of assessment for learning/of learning and as learning through projects (NTECF; NTS 3k, 3l, 3m, 3p).			<ul style="list-style-type: none"> <li>Differentiate among the forms of assessment: Assessment of Learning (AoL), Assessment as Learning (AaL), Assessment for Learning (AfL);</li> <li>Discuss the purposes of the various forms of assessment;</li> <li>Create various assessment activities under the different forms of assessment</li> <li>Use different forms of assessment during STS and child study.</li> </ul>				<p>Communication skills: through questions and answers.</p> <p>Digital literacy: Surfing the internet for relevant information on themes to be discussed.</p> <p>Personal development: Through seminar discussions.</p> <p>Equity and inclusivity: application of principles to design assessment for various early grade pupils with diverse learners</p> <p>Critical thinking: create varying forms of assessment</p>								

Topic Title: Principles and purposes of assessment	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	General principles of assessment	20 minutes	<b>Face-to-face</b> Explores RPK through questioning. Tutor guides students to review basic concepts in assessment. (PD theme 2)	<b>Face-to-face</b> Provides relevant responses for questions
		30 minutes	<b>Face-to-face</b> <ul style="list-style-type: none"> <li>Teacher-led discussion using think, pair share on the meaning and three forms of assessment;</li> <li>Teacher lead class to examine the differences among the forms assessment.</li> </ul>	<b>Face-to-face</b> Participate in discussions through questions and answers base on their STS experiences.
	Purposes of assessment; Assessment of Learning (AoL), Assessment as Learning (AaL), Assessment for Learning (AfL);	1 hour	<b>Practical activity and seminar</b> Put student into small groups and guide purposes of the assessment: forms Assessment of Learning (AoL), Assessment as Learning (AaL), Assessment for Learning (AfL);  Let groups present on purposes of assessment. Move round various groups to provide support where necessary (PD theme 4)	<b>Practical activity</b> Student teachers Work in their groups to examine purpose of assessment  Groups present findings to whole class
		1 hour	<b>Practical activity and Seminar</b> Guide student teachers to work in their small mixed ability groups to create various activities of the assessment forms under selected topics from the early grade  Guide them to examine the assessment practices provided in the syllabuses and critique. This should be presented in the next lesson	<b>Seminar</b> Randomly selected groups present to the whole class. Groups compare with what they have and critique.  Work in their small mixed ability groups to examine assessment practices provided in the early grade curriculum and present during the next lesson.
	Closure	10 minutes	Review key aspects and summarise lesson through questions and answers	Respond to questions to review lesson
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>In-lesson Assessment:</b> Peers Review of group presentation for other members to ask questions and contribute to discussion. Group work on examining assessment practices under AaL, AfL and AoL provided in the syllabus under various topics and corresponding indicators to be addressed should be presented and scored to count towards grading in the 5 <sup>th</sup> week. CLO 2 NTS k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners' difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher.			

	<p>n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners.</p> <p>o) Demonstrates awareness of national and school learning outcomes of learners.</p> <p>p) Uses objective criterion referencing to assess learners.</p>
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• Early grade school Curriculum and syllabuses</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Efrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	<p>The Pre-tertiary Curriculum and its assessment components. Developing activities under AoL/AfL and AaL</p>

## LESSON 3

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 <b>3</b> 4 5 6 7 8 9 10 11 12
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Title of Lesson	Types of assessment						Lesson Duration	3 Hours
<b>Lesson description</b>	This lesson aims to prepare students to demonstrate knowledge and understanding of the grade level expectations and assessment benchmarks for basic schools in Ghana. It is also structured to enable them identify and apply the various types of assessment to address the needs of diverse learners in order to meet the grade level expectations and national assessment benchmarks.							
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers have knowledge and understanding of the principles and purpose of assessment. Moreover, they had the opportunity of embarking on STS activities which exposed them to the early grade school curriculum and its assessment components.							
<b>Possible barriers to learning in the lesson</b>	Students have not prepared test items before.							
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ √ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ √ ]</b>	<b>Practicum</b>	
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face</b> – Discussion, lecturette, think, pair share should be used in facilitating lessons on types of assessment.</p> <p><b>e-learning opportunities</b> – use mobile phones and other digital devices to look for information online for presentations on types of assessment.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum to identify various types of assessment.</p> <p><b>Practical Activity:</b> Group presentation and discussion on characteristics, merits and demerits of the various types of assessment.</p>							
<ul style="list-style-type: none"> <li>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</li> <li>Write in full aspects of the NTS addressed</li> </ul>	demonstrate knowledge and understanding of the types of assessment and assessment benchmarks for basic schools in Ghana (NTS 3g, 3k, 3l, 3p; NTECF).							
<ul style="list-style-type: none"> <li>Learning Outcome for the lesson, picked and developed from the course specification</li> <li>Learning indicators for each learning outcome</li> </ul>	<b>Learning Outcomes</b>		<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?		
	CLO 3. demonstrate knowledge and understanding of types of assessment and the grade level expectations and assessment benchmarks for basic schools in Ghana (NTS 3g, 3k, 3l, 3p; NTECF).		<ul style="list-style-type: none"> <li>Distinguish between formative and summative assessment</li> <li>Examine the characteristics of diagnostic assessment; school-based assessment; and standards-based assessment</li> <li>Discuss the merits and demerits of the continuous assessment</li> </ul>			Communication skills: through group presentations Digital literacy: Surfing the internet for relevant information on themes to be discussed. Personal development: Appreciation of assessment in educational delivery Respect and diversity:		

			<ul style="list-style-type: none"> <li>Examine the differences between the former objective-based and current standards based early grade curriculum.</li> <li>Discuss the grade level expectations and assessment benchmarks for early grade pupils in Ghana.</li> <li>Discuss the advantaged and challenges in the use of standards based assessment in Ghana and how they can be addressed</li> </ul>	Designing Assessment for all early grade students with diverse background for Diversity, Equity and inclusivity
<b>Topic Title:</b> Types of assessment	<b>Sub-topic</b>	<b>Stage/time</b>	<b>Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.</b>	
			<b>Teacher Activity</b>	<b>Student Activity</b>
	Introduction to types of assessment.	40 minutes	<b>Face-to-face</b> <ul style="list-style-type: none"> <li>Reviews RPK using questioning to explore student teachers understanding (PD theme 2)</li> <li>Select groups at random to present last week's assignment. Let them use comments to revise work for final submission for scoring in week five</li> </ul>	<ul style="list-style-type: none"> <li>Provide relevant answers to questions posed.</li> <li>Present last week's assignment and revise for submission in week 5 for scoring</li> </ul>
	Formative assessment and types of formative assessment	40 minutes	<b>e-learning opportunities:</b> Guides students to use mobile phones and other digital devices to look for information online on formative assessment and types of formative assessment and share their answers in class. Guide them to provide relevance examples from their experience during STS	<b>e-learning opportunities:</b> Student teachers use mobile phones and other digital devices to look for information online on formative assessment and types of formative assessment and share their answers in class. Share some experience from STS
	Characteristics, merits and demerits of continuous assessment	40 minutes	<b>Face-to-face</b> Leads discussion on meaning and characteristics of continuous assessment. Guide student teachers to search for information using their phones Use pyramid discussion to initiate discussion on merits and demerits. Let two big groups formed from the pyramid appoint representatives to debate	<b>Face-to-face</b> Search for information on meaning of CA using their phones and share  Two big groups formed from the pyramid appoint representatives to debate merits and demerits: Whether CA is necessary or unnecessary
	Objective based and standards based curriculum	30 minutes	<b>Practical Activity:</b> Leads discussions using concept mapping/cartooning and assist students to work in pairs or small mixed ability groups on	<b>Practical Activity:</b> Student teachers work in pairs or small groups on assigned task and share their answers.

			similarities and differences between the Objective based and standards based curriculum and present to class random. Soft copies or hard copies of the curricula should be made available to students (PD theme 2, 3, 4)	
	Grade level expectations for early grade pupils and national assessment benchmarks	10 minutes	Guides student teachers to go through the early grade curriculum identify and share the grade expectations for early grade pupils and national assessment benchmarks	Go through early grade curriculum to identify and share grade expectations for early grade learners and national assessment benchmarks
	Strengths and challenges of the use of standards based curriculum in Ghana and how they can be addressed	15 minutes	Put student teachers into pairs or smaller groups to start working on Strengths and challenges of the use of standards based curriculum in Ghana and how they can be addressed. Let them share preliminary ideas and present full details in next lesson	Work in pairs or smaller groups on Strengths and challenges of the use of standards based curriculum in Ghana and how they can be addressed. Share preliminary ideas and present full details in next lesson
	Closure	5 minutes	Review key points through questions and answers	Provide responses for review of key point in the lesson.
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p><b>In-lesson Assessment:</b> Group presentation on various tasks assigned during the lesson. CLO 3</p> <p>Presentation of reflections on the standards-based assessment in Ghana to part of portfolio to examined in week 9</p> <p>NTS</p> <p>k) Integrates a variety of assessment modes into teaching to support learning.</p> <p>l) Listens to learners and gives constructive feedback.</p> <p>m) Identifies and remediates learners’ difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher.</p> <p>n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners.</p> <p>o) Demonstrates awareness of national and school learning outcomes of learners.</p> <p>p) Uses objective criterion referencing to assess learners.</p>			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>•</li> </ul>			

<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	<p>The Pre-tertiary curriculum Curriculum and its assessment components.</p>

## LESSON 4

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 <b>4</b> 5 6 7 8 9 10 11 12							
<b>Title of Lesson</b>	Taxonomies of educational objectives (Revised version by Anderson and Krathwohl, 2001)				<b>Lesson Duration</b>	<b>3 Hours</b>						
<b>Lesson description</b>	This lesson aims to prepare students to demonstrate understanding and use of comprehensive and appropriate learning objectives and outcomes in relation to the various domains of learning in learning plans. It is planned to assist student teachers to appreciate criteria in writing learning objectives in their learning plans to enable them provide or develop appropriate assessment practices to address indicators/objectives in the curriculum during STS											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers had the opportunity of embarking on STS activities which exposed them to early grade school curriculum and lesson plans.											
<b>Possible barriers to learning in the lesson</b>	Students have not prepared lesson plan before											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face</b> [ <input checked="" type="checkbox"/> ]	<b>Practical Activity</b> [ <input checked="" type="checkbox"/> ]	<b>Work-Based Learning</b>	<b>Seminars</b> [ <input type="checkbox"/> ]	<b>Independent Study</b> [ <input checked="" type="checkbox"/> ]	<b>e-learning opportunities</b> [ <input type="checkbox"/> ]	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face</b> – Discussion, lecturette, think, pair share should be used in facilitating lessons on concept of learning outcomes and types of objectives.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum to identify and make presentations on cognitive, affective and psychomotor domains.</p> <p><b>Practical Activity:</b> Group presentation and discussion on projects to design taxonomies of educational objectives.</p>											
<ul style="list-style-type: none"> <li>• <b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li>• <b>Write in full aspects of the NTS addressed</b></li> </ul>	<p>demonstrate understanding and use of comprehensive and appropriate learning objectives (NTECF; NTS 3k, 3l, 3p).</p>											
<ul style="list-style-type: none"> <li>• <b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li>• <b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 4. demonstrate understanding and use of comprehensive and appropriate learning objectives and outcomes in relation to the various domains of learning in learning plans (NTECF; NTS 3k, 3l, 3p).			<ul style="list-style-type: none"> <li>• Enumerate the criteria in setting learning objectives.</li> <li>• Formulate appropriate learning objectives and outcomes under the various domains of learning in learning plans.</li> </ul>			<p>Communication skills: through group presentations</p> <p>Personal development: Learning about different domains.</p> <p>Respect and diversity: Learning objectives and outcomes in line with the various domains of learning in learning plans.</p> <p>Develop critical thinking skills when developing assessment practices to address indicators/expectations or objectives in the curriculum</p>					

Topic Title: Taxonomies of educational objectives	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	20 minutes	<p><b>Face-to-face</b> Select groups randomly to present last week's assignment.</p> <p>Reviews RPK using questions and answers on their experiences with STS and their observations about lesson plans they came in contact with. (PD theme 2)</p>	<p>Selected groups present last week's assignment.</p> <p>Provide relevant answers to questions posed and applying the knowledge gained during STS.</p>
	The concept of learning outcomes and types of objectives (behavioural and learning)	40 minutes	<p><b>Face-to-Face:</b> Leads discussions using concept mapping/cartooning and assist students to appreciate the concept of learning outcomes and types of objectives; (PD theme 2, 3, 4). Students are grouped into mixed ability and discusses the types of objectives</p>	<p><b>Face-to-Face:</b> Student teachers participate in lesson and use their STS experience to answer questions</p> <p>Students participate in groups and share their STS experiences.</p>
	Types of Domains (cognitive, affective and psychomotor)	60 minutes	<p><b>Independent Study:</b> Individual study and group presentations on cognitive, affective and psychomotor domains (PD theme 2, 3, 4). Students are grouped into mixed ability and discusses the various domains</p>	<p><b>Independent Study:</b> Student teachers participate in group activities</p>
	Educational Objectives (cognitive domain objectives, affective domain objectives and psychomotor domain objectives)	50 minutes	<p><b>Practical Activity:</b> Teacher provides and discusses samples of educational objectives/indicators from the Pre-tertiary curriculum. Student are supported in groups of mixed ability to work on projects to write indicators/objectives for selected topics</p>	<p><b>Practical Activity:</b> Students participate in groups and share what they have written.</p>
	Closure	10 minutes	<p>Review key points and summarise lesson through questions and answers. Give a reading assignment on stages in classroom testing</p>	<p>Respond to questions to review key points</p>

<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>In-lesson Assessment:</b> Group presentation of assigned tasks during lessons CLO 4 Student work on writing indicators for selected topics and assessment practices (AoL, AaL,AfL) that can be used to address the indicators to be submitted in the 5 week for scoring.
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>,<a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>,<a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	Mapping indicators in the early grade curriculum to the domains on objectives

# LESSON 1

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 <b>5</b> 6 7 8 9 10 11 12							
<b>Title of Lesson</b>	Taxonomies of educational objectives (Revised version by Anderson and Krathwohl, 2001)				<b>Lesson Duration</b>	<b>3 Hours</b>						
<b>Lesson description</b>	This lesson aims to prepare students to demonstrate understanding and use of comprehensive and appropriate learning objectives and outcomes in relation to the various domains of learning in learning plans. It is planned to assist student teachers to appreciate criteria in writing learning objectives in their learning plans to enable them provide or develop appropriate assessment practices to address indicators/objectives in the curriculum during STS											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers had the opportunity of embarking on STS activities which exposed them to early grade school curriculum and lesson plans. They have also treated some aspects of the taxonomies of objectives											
<b>Possible barriers to learning in the lesson</b>	Students have not prepared lesson plan before											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face</b> – Discussion, lecturette, think, pair share should be used in facilitating lessons on concept of learning outcomes and types of objectives.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum to identify and make presentations on cognitive, affective and psychomotor domains.</p> <p><b>Practical Activity:</b> Group presentation and discussion on projects to design taxonomies of educational objectives.</p>											
<ul style="list-style-type: none"> <li><b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li><b>Write in full aspects of the NTS addressed</b></li> </ul>	demonstrate understanding and use of comprehensive and appropriate learning objectives (NTECF; NTS 3k, 3l, 3p).											
<ul style="list-style-type: none"> <li><b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li><b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 4. demonstrate understanding and use of comprehensive and appropriate learning objectives and outcomes in relation to the various domains of learning in learning plans (NTECF; NTS 3k, 3l, 3p).			<ul style="list-style-type: none"> <li>Enumerate the criteria in setting learning objectives.</li> <li>Formulate appropriate learning objectives and outcomes under the various domains of learning in learning plans.</li> </ul>			Communication skills: through group presentations Personal development: Learning about different domains. Respect and diversity: Learning objectives and outcomes in line with the various domains of learning in learning plans. Develop critical thinking skills when developing assessment practices to address indicators/expectations or objectives in the curriculum					

Topic Title: Taxonomies of educational objectives	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	20 minutes	<p><b>Face-to-face</b> Select groups randomly to present last week's assignment.</p> <p>Reviews RPK using questions and answers on their experiences with STS and their observations about lesson plans they came in contact with. (PD theme 2)</p>	<p>Selected groups present last week's assignment.</p> <p>Provide relevant answers to questions posed and applying the knowledge gained during STS.</p>
	The concept of learning outcomes and types of objectives (behavioural and learning)	40 minutes	<p><b>Face-to-Face:</b> Leads discussions using concept mapping/cartooning and assist students to appreciate the concept of learning outcomes and types of objectives; (PD theme 2, 3, 4). Students are grouped into mixed ability and discusses the types of objectives</p>	<p><b>Face-to-Face:</b> Student teachers participate in lesson and use their STS experience to answer questions</p> <p>Students participate in groups and share their STS experiences.</p>
	Types of Domains (cognitive, affective and psychomotor)	60 minutes	<p><b>Independent Study:</b> Individual study and group presentations on cognitive, affective and psychomotor domains (PD theme 2, 3, 4). Students are grouped into mixed ability and discusses the various domains</p>	<p><b>Independent Study:</b> Student teachers participate in group activities</p>
	Educational Objectives (cognitive domain objectives, affective domain objectives and psychomotor domain objectives)	50 minutes	<p><b>Practical Activity:</b> Teacher provides and discusses samples of educational objectives/indicators from the Pre-tertiary curriculum. Student are supported in groups of mixed ability to work on projects to write indicators/ objectives for selected topics</p>	<p><b>Practical Activity:</b> Students participate in groups and share what they have written.</p>
	Closure	10 minutes	<p>Review key points and summarise lesson through questions and answers. Give a reading assignment on stages in classroom testing</p>	<p>Respond to questions to review key points</p>
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p><b>In-lesson Assessment:</b> Group presentation of assigned tasks during lessons CLO 4 A group project on activities on assessment (i) for (ii) of and (iii) as learning for early graders; learning indicators for the activities and develop rubrics for scoring. (Core skills to be developed: critical thinking) Assesses Learning Outcomes: CLO 1, CLO 2 and CLO 3 (Units 1, 2 and 3) <b>NTS addressed:</b> 2a: Demonstrates familiarity with the education system and key policies guiding it. 2b: Has comprehensive knowledge of the official school curriculum, including learning</p>			

	<p>outcomes</p> <p>3k: Integrates a variety of assessment modes into teaching to support learning.</p> <p>3n: Keeps meaningful records of every learner and communicates progress clearly to parents and learners.</p> <p>3o: Demonstrates awareness of national and school learning outcomes of learners.</p> <p>3p: Uses objective criterion referencing to assess learners.</p>
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Efrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	<p>Mapping indicators in the early grade curriculum to the domains on objectives</p>

## LESSON 6

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 <b>6</b> 7 8 9 10 11 12							
<b>Title of Lesson</b>	Assessment procedures for early grade inclusive classrooms I							<b>Lesson Duration</b>	<b>3 Hours</b>			
<b>Lesson description</b>	This lesson is designed to equip student teachers with techniques and skills to enable them develop tasks and projects for early grade learners in inclusive classrooms. This will promote the monitoring and gathering of data on individual learners for instructional decision making.											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student have used various to collect data for child study and have also observed how mentors assigned projects and tasks during STS											
<b>Possible barriers to learning in the lesson</b>	Large class sizes											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ v ]</b>	<b>Practical Activity [ v ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ ]</b>	<b>Independent Study [ v ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face</b> – Discussion, lecturette, think, pair share should be used in facilitating lessons on concept of learning outcomes and types of objectives.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum to identify and make presentations on cognitive, affective and psychomotor domains.</p> <p><b>Practical Activity:</b> Group presentation and discussion on projects to design taxonomies of educational objectives.</p>											
<ul style="list-style-type: none"> <li>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</li> <li>Write in full aspects of the NTS addressed</li> </ul>	CLO 5 demonstrate understanding, and use of contemporary data collection approaches considering gender and learners with diverse strengths in inclusive and multi-grade classrooms during supported teaching in schools (NTECF; NTS 3k, 3l, 3p).											
<ul style="list-style-type: none"> <li>Learning Outcome for the lesson, picked and developed from the course specification</li> <li>Learning indicators for each learning outcome</li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 5 demonstrate understanding, and use of contemporary data collection approaches considering gender and learners with diverse strengths in inclusive and multi-grade classrooms during supported teaching in schools (NTECF; NTS 3k, 3l, 3p).			5.1 Use socio-cultural and learning approach to track the learning of selected early grade pupils during STS and submit report for assessment.			Communication skills: through group presentations Personal development: Learning about different domains. Respect and diversity: Learning objectives and outcomes in line with the various domains of learning in learning plans. Critical thinking developed during test item writing.					

Topic Title: Assessment procedures for early grade inclusive classrooms	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	20 minutes	Review RPK of student teachers through questions on tools used for child study etc.	Respond to questions during review.
	Principles of fair assessment in early grade	40 minutes	<b>Face-to-face and e-learning</b> Guide student teachers to explore the meaning of fair assessment and how it can be ensured in early grade education	<b>Face-to-face and e-learning</b> Participate in discussion and share ideas and experiences from STS
	learning stories approach and socio-cultural approach	90 minutes	<b>Practical activity</b> Use talk for learning approaches to review student teachers understanding of learning stories and socio-cultural approach. Let them practice their use in class. Guide them to build on what they did in level 100. Let work in pairs to track the learning journey of a selected child from their school of practice using the two approaches. Report should be part of portfolio to be assessed	<b>Practical activity</b> Participate in activity and work in pairs on an identified early grade pupil and present report later.
	<b>Conclusion</b>	30 minutes	Let paired groups present their in lesson tasks for class to comment. Review and summarize key points in lesson	Present in-lesson tasks and respond to comments
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>In-lesson Assessment:</b> Pair presentation of tasks assigned in the course of the lesson. CLO 5 <b>Semester project to be part of portfolio to be scored</b> Work in pairs to Develop report on a selected early grade pupil/pupils using any of the two approaches NTS 3 k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners’ difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher. n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners. o) Demonstrates awareness of national and school learning outcomes of learners. p) Uses objective criterion referencing to assess learners.			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> </ul>			

	<ul style="list-style-type: none"> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Efrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	Authentic/performance assessment. Learning stories and social cultural approach

## LESSON 7

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 6 <b>7</b> 8 9 10 11 12
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Title of Lesson	Assessment procedures for early grade inclusive classrooms II						Lesson Duration	3 Hours
<b>Lesson description</b>	This lesson is designed to equip student teachers with techniques and skills to enable them develop tasks and projects and also develop various data collection tools for early grade learners in inclusive classrooms. This will promote the monitoring and gathering of data on individual learners for instructional decision making.							
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student have used various to collect data for child study and have also observed how mentors assigned projects and tasks during STS							
<b>Possible barriers to learning in the lesson</b>	Large class sizes							
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face</b> [ v ]	<b>Practical Activity</b> [ v ]	<b>Work-Based Learning</b>	<b>Seminars</b> [ ]	<b>Independent Study</b> [ v ]	<b>e-learning opportunities</b> [ ]	<b>Practicum</b>	
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face</b> – Discussion, lecturette, think, pair share should be used in facilitating lessons on concept of learning outcomes and types of objectives.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum to identify and make presentations on cognitive, affective and psychomotor domains.</p> <p><b>Practical Activity:</b> Group presentation and discussion on projects to design taxonomies of educational objectives.</p>							
<ul style="list-style-type: none"> <li>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</li> <li>Write in full aspects of the NTS addressed</li> </ul>	CLO 5 demonstrate understanding, and use of data collection tools and procedures considering gender and learners with diverse strengths in inclusive and multi-grade classrooms during supported teaching in schools (NTECF; NTS 3k, 3l, 3p).							
<ul style="list-style-type: none"> <li>Learning Outcome for the lesson, picked and developed from the course specification</li> <li>Learning indicators for each learning outcome</li> </ul>	<b>Learning Outcomes</b>	<b>Learning Indicators</b>			<b>Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?</b>			
	CLO 5 demonstrate understanding, and use of data collection tools and procedures considering gender and learners with diverse strengths in inclusive and multi-grade classrooms during supported teaching in schools (NTECF; NTS 3k, 3l, 3p).	5.1 examine the different types of observation and how they can be used during STS.	5.2 Use various data collection tools to gather data on early learners for informed instructional decision making.	Communication skills: through group presentations Personal development: Learning about different domains. Respect and diversity: Learning objectives and outcomes in line with the various domains of learning in learning plans. Critical thinking developed during test item writing.				

Topic Title: Assessment procedures for early grade inclusive classrooms	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	20 minutes	Review RPK of student teachers through questions on tools used for child study etc.	Respond to questions during review of RPK
	Data collection techniques	2 hours	<b>Independent learning</b> Review student teachers knowledge on the two basic types of observation learnt in level 100. Let them expand their search to other types and present to whole class for comments	<b>Independent learning</b> Express views on the two basic types of observation learnt in level 100. Expand your search to other types and present to whole class for comments
			<b>Practical activity</b> Guide student teachers to work in pairs on one of the following GES approved assessment inventories; checklists, rating scales, clinical interviews, conversation, gallery work; project development; task analysis. Student teachers describe the tool, explain their purpose, provide sample where necessary and explain how they can be used.  Remind them to use any of these for their project in school related problems under guidance and counselling course.	<b>Practical activity</b> Work in pairs on one of the following GES approved assessment inventories. Describe the tool, explain their purpose, provide sample where necessary and explain how they can be used.  Use any of these for their project in school related problems under guidance and counselling course.
	<b>Conclusion</b>	30 minutes	Let paired groups present their in lesson tasks for class to comment. Review and summarize key points in lesson	Present in-lesson tasks and respond to comments
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>In-lesson Assessment:</b> Pair presentation of tasks assigned in the course of the lesson. CLO 5 <b>Semester project to be part of portfolio to be scored</b> Use any of the tools in the school related problems project in the guidance and counselling course NTS 3 k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners’ difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher. n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners. o) Demonstrates awareness of national and school learning outcomes of learners. p) Uses objective criterion referencing to assess learners.			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> </ul>			

	<ul style="list-style-type: none"> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	Authentic/performance assessment. Learning stories and social cultural approach

## LESSON 8

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 6 7 8 9 10 11 12							
<b>Title of Lesson</b>	Reliability and validity of classroom- based Assessment				<b>Lesson Duration</b>	<b>3 Hours</b>						
<b>Lesson description</b>	The lesson is designed to expose student teachers to the basic characteristics of classroom assessment. This entails the determination of the reliability of validity of assessment conducted to enable it generated the kind of evidences required to for meaningful decision making in diverse learning environments. This will thus equip student teachers with the skills required to construct projects that measure what they are supposed to measure in early grade learning environments.											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	They have also observed the administration and scoring of exercises in their schools of practice.											
<b>Possible barriers to learning in the lesson</b>	Student may not understand the how to determine the reliability and validity of projects/tasks											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face:</b> Discussion, lecturette, think, pair share should be used in facilitating lessons on various inclusive settings in the classroom.</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum and discusses the procedures for planning inclusive classroom tests and assessments.</p> <p><b>Practical Activity:</b> Group presentation on procedures for planning inclusive classroom tests and assessments.</p>											
<ul style="list-style-type: none"> <li>• <b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li>• <b>Write in full aspects of the NTS addressed</b></li> </ul>	Demonstrate the understanding of the planning process in assessment taking into consideration the diverse group of learners and the reliability and validity of assessment procedures (NTECF; NTS 3f, 3g, k, l, n, m, o, p).											
<ul style="list-style-type: none"> <li>• <b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li>• <b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>				Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?				
	CLO 6. Demonstrate the understanding of the planning process in assessment taking into consideration the diverse group of learners and the reliability and validity of assessment procedures (NTECF; NTS 3f, 3g, k, l, n, m, o, p).			<ul style="list-style-type: none"> <li>• Explain the concepts reliability and validity</li> <li>• Examine the factors that improve and influence reliability and validity of tests</li> <li>• Apply basic methods for estimating reliability of tests in early grade learning environment</li> <li>• Examine the factors that improve and influence validity of tests</li> <li>• Analyse the categories of validity evidences and apply them decision making during STS</li> </ul>				Communication skills: through group presentations Personal development: individual and group presentations Respect and diversity: construct test to assess learners with different characteristics Critical thinking: developing test items for learner with different characteristics				

Topic Title: Planning classroom tests and assessment: Reliability and validity of performance-based assessment	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	30 minutes	Review student teachers RPK through questions. Guide them to exchange last week's assignment amongst themselves and mark. Link comments to the days lesson	Exchange last week's assignment amongst yourself and mark.
		20 minutes	<b>Face-to-face and e-learning</b> Uses lecturette to introduce topic. Guides student teachers to use their phones in searching for the meaning of reliability and validity of . Let them share their findings	<b>Face-to-face and e-learning</b> Participate in discussion and use phones in searching for the meaning of reliability and validity. Share your findings
		30 minutes	<b>Practical activity &amp; independent learning</b> Guides student teachers to think-pair and share their views on factors that improve and influence reliability of tests. Draw on their experiences from STS. Select pairs at random for them to share their findings and make inputs to enrich discuss.	<b>Practical activity &amp; independent learning</b> think-pair and share views on factors that improve and influence reliability of tests. Draw on your experiences from STS. Selected pairs share their findings
		40 minutes	<b>Face-to-face and independent learning</b>  Use lecturette to introduce and explain the basic methods for estimating reliability of tests in early grade learning environment: Test-retest method Equivalent forms method Split half method Use case studies and practical illustrations to stimulate discussions on how methods are applied	<b>Face-to-face and independent learning</b>  Examines cases provided to explain illustrate and stimulate discussions on how methods are applied in early grade classrooms
		30 minutes	<b>Practical activity</b> • Guides student teachers to think-pair and share their views on factors that improve and influence validity of tests. Draw on their experiences from STS. Select pairs at random for them to share their findings and make inputs to enrich discuss.	<b>Practical activity</b> • think-pair and share views on factors that improve and influence validity of tests. Draw on experiences from STS. Selected pairs share their findings
		25 minutes	<b>Face-to-face and independent learning</b> Use lecturette to introduce and explain the categories of validity evidences and how to apply them in decision. They	<b>Face-to-face and independent learning</b> Participate in discussing The various validity evidences using case studies and practical

			are: <ul style="list-style-type: none"> <li>• Content-related validity evidence</li> <li>• Criterion-related validity evidence</li> <li>• Construct-related validity evidence</li> <li>• Use case studies and practical illustrations to stimulate discussions on how methods are applied.</li> </ul>	illustrations
		5 minutes	Review key issues in the lesson and summarise	Provide response to questions posed during review and summary of lessons.
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p><b>In-lesson Assessment: in lesson tasks on item analysis. CLO 6</b></p> <p>Topic treated will be assessed as part of a quiz in week 9.</p> <p>NTS 3</p> <p>k) Integrates a variety of assessment modes into teaching to support learning.</p> <p>l) Listens to learners and gives constructive feedback.</p> <p>m) Identifies and remediates learners’ difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher.</p> <p>n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners.</p> <p>o) Demonstrates awareness of national and school learning outcomes of learners.</p> <p>p) Uses objective criterion referencing to assess learners.</p>			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>			
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>			
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**CPD needs**

Determining reliability and validity of projects and tasks in performance based assessment

## LESSON 9

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 6 7 8 <b>9</b> 10 11 12							
<b>Title of Lesson</b>	Review of lessons and portfolio Assessment							<b>Lesson Duration</b>	<b>3 Hours</b>			
<b>Lesson description</b>	This session is meant to review all semester topic and identify key issues in assessment in early grade education that require further clarification. Various assignments given for submission will also be examined and suggestions provided where necessary.											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Students have been exposed to various topics and concepts in assessment in early childhood education											
<b>Possible barriers to learning in the lesson</b>	Student teachers may be having misconceptions about the non-use of traditional assessment practices in early grade											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ √ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<b>Face-to-face:</b> Concept mapping/cartooning to discuss descriptive statistics and its application in interpreting assessment results. <b>Seminar:</b> Students participate in a seminar session. <b>Independent study:</b> student teachers engage with relevant and appropriate previous assessment instruments and discuss validity and reliability issues.											
<ul style="list-style-type: none"> <li>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</li> <li>Write in full aspects of the NTS addressed</li> </ul>	Demonstrate the understanding and use of norm-referenced and criterion-referenced modes of interpreting tests and manage data gathered on various aspects of the learners (NTS 3p).											
<ul style="list-style-type: none"> <li>Learning Outcome for the lesson, picked and developed from the course specification</li> <li>Learning indicators for each learning outcome</li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 8. demonstrate knowledge and understanding of the use of various assessment practices in early grade education gathered on various aspects of the learners (NTS 3p).			<ul style="list-style-type: none"> <li>Collect data on various aspects of learners with different tools, analyse and use results to support learning of diverse learners.</li> <li>Design differentiated assessment for learners with SEN in inclusive settings.</li> </ul>			Communication skills: through group presentations Personal development: Learning about assessing project work Respect and diversity: collecting data on various types of learners					
<b>Topic Title:</b> Data presentation and Interpretation of tests and authentic assessment data	<b>Sub-topic</b>	<b>Stage/time</b>		<b>Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.</b>								
				<b>Teacher Activity</b>			<b>Student Activity</b>					
	Introduction	20 minutes		Use talk for learning approaches to review student teachers understanding of various topics treated and assignments given			Take part in review by providing responses to questions					

		2 hours 20 minutes	Let students present various assignments and projects given for submission and ask questions for clarification where necessary. Make inputs to enrich presentations.	Present various projects and reflective notes and ask questions for clarification. Incorporate suggestions to enrich the work.
		20 minutes	Review the day's activities and summarise	Respond and ask relevant questions for
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p><b>In-lesson Assessment:</b> Presentation of tasks assigned to students 60 minutes quiz on selected topics from lesson 5 to 8 to be part of portfolio. Quiz should be scored 15 out of the 30%. The rest (15%) should be for other artifacts</p> <p>NTS 3</p> <p>k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners' difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher. n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners. o) Demonstrates awareness of national and school learning outcomes of learners. p) Uses objective criterion referencing to assess learners.</p>			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>•</li> </ul>			
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<b>CPD needs</b>				

## LESSON 10

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1	2	3	4	5	6	7	8	9	10	11	12
<b>Title of Lesson</b>	Planning and administering performance-based assessment										<b>Lesson Duration</b>	<b>3 Hours</b>				
<b>Lesson description</b>	This lesson aims to prepare student teachers to assess students through, projects and assignments among others. It tries to assist students to effectively plan, administer and evaluate performance assessment tasks, considering gender and learners with diverse strengths in inclusive and multi-grade classrooms															
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers have knowledge about achievement test.															
<b>Possible barriers to learning in the lesson</b>	Students may not be familiar with how to plan and implement performance-based assessment.															
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ √ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>									
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<p><b>Face-to-face:</b> Concept mapping/cartooning for meaning and characteristics of the types of authentic or performance assessment.</p> <p><b>Seminar:</b> Students participate in a seminar session</p> <p><b>Independent study:</b> student teachers engage with relevant and appropriate curriculum and discusses the procedures for planning inclusive classroom tests and assessments.</p> <p><b>Practical Activity:</b> Group presentations of how to plan and develop authentic/performance assessment tasks for inclusive and multi-grade classrooms</p>															
<ul style="list-style-type: none"> <li>• <b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li>• <b>Write in full aspects of the NTS addressed</b></li> </ul>	Demonstrate the understanding of assessing performance and related assignments for inclusive and multi-grade classrooms ( <b>NTECF; NTS 3k, 3I, 3p</b> ).															
<ul style="list-style-type: none"> <li>• <b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li>• <b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>			<b>Learning Indicators</b>						Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?						
	CLO 7. demonstrate understanding, planning and developing authentic/performance assessment tasks, considering gender and learners with diverse strengths in inclusive and multi-grade classrooms ( <b>NTECF; NTS 3k, 3I, 3p</b> ).			<ul style="list-style-type: none"> <li>• Explain authentic/performance assessment and discuss the characteristics of the types of authentic/performance assessment tasks.</li> <li>• Plan and develop authentic/performance assessment tasks for inclusive and multi-grade classrooms.</li> </ul>						Communication skills: through group presentations Personal development: Learning about planning assessment Respect and diversity: Understanding the various inclusive classroom settings. Creativity and innovation by developing performance based tasks						

Topic Title: Planning and administering performance-based assessment	Sub-topic	Stage/time	Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.	
			Teacher Activity	Student Activity
	Introduction	20 minutes	<b>Face-to-face</b> Review RPK drawing on student teachers experiences from STS	<b>Face-to-face</b> Provide relevant answers to questions posed and applying the knowledge gained during STS.
	The concept authentic/performance assessment	20 minutes	<b>Face-to-face:</b> Tutor uses concept mapping/cartooning for meaning and characteristics of the types of authentic or performance assessment.	<b>Face-to-face:</b> Student teachers participate in lesson and use their STS experience to answer questions.
	Implementing performance-based Assessment	20 minutes	<b>Independent learning</b> Guide student teachers to search for the purpose or reason for using performance-based assessment.	<b>Seminar:</b> Student teachers participate in the sessions.
	Choosing your activity	20 minutes	<b>Face-to-face and independent learning</b> Lead a discussion on how to choose activities for performance based assessment. Guide them to think-pair and share the meaning and purpose of informal and formal activities. Let them share their thoughts drawing from STS experiences	<b>Face-to-face and independent learning</b> Share the meaning and purpose of informal and formal activities. Share thoughts drawing from STS experiences
	Defining criteria	40 minutes	<b>Face-to-face and independent learning</b> Lead discussion on criteria for assessing tasks: <ol style="list-style-type: none"> <li>1. Identify the overall performance or task to be assessed, and perform it yourself or imagine yourself performing it.</li> <li>2. List the important aspects of the performance or product.</li> <li>3. Try to limit the number of performance criteria, so they can all be observed during a pupil's performance.</li> <li>4. If possible, have groups of teachers think through the important behaviors included in a task.</li> <li>5. Express the performance criteria in terms of observable pupil behaviors or product characteristics.</li> <li>6. Don't use ambiguous words that cloud the meaning of the performance criteria.</li> </ol>	<b>Face-to-face and independent learning</b>  Groups work on assigned criteria and present.

			7. Arrange the performance criteria in the order in which they are likely to be observed. Assign criteria to small groups to examine and present in class.	
	Creating performance rubric (rating scale)	20 minutes	<b>Independent learning</b> Review student teachers knowledge on the use of rating scales. Provide students with hypothetical cases in their schools of practice and let them develop rating scales or rubrics in pairs to score the project.  Let them present their scales and explain how they should be used. Let peers comment and assess.	<b>Independent learning</b> Present scales and explain how they should be used. Peers comment and assess.
	Assessing Performance	30 minutes	<b>Practical activity</b> Put student teachers in small groups and assign to them to work on different ways of assessing performance: <ul style="list-style-type: none"> <li>• Checklist approach</li> <li>• Narrative approach</li> <li>• Rating scale approach</li> <li>• Memory approach</li> </ul> Guide small groups to present for comment from colleagues	<b>Practical activity</b> Small groups work on ways of assessing performance.
	<b>Conclusion</b>	10 minutes	Review key issues and summarise lesson through questions	Respond to questions for review and summary
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>In-lesson Assessment:</b> Group presentation during lessons  NTS 3 k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners’ difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher. n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners. o) Demonstrates awareness of national and school learning outcomes of learners. p) Uses objective criterion referencing to assess learners.			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>			

<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	<p>Planning and implementing performance based assessment.</p>

# LESSON 11

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 6 7 8 9 10 <b>11</b> 12							
<b>Title of Lesson</b>	Data presentation and Interpretation of tests and authentic assessment data				<b>Lesson Duration</b>	<b>3 Hours</b>						
<b>Lesson description</b>	This lesson aims to prepare students teachers to acquire a repertoire of knowledge and skills to enable them apply appropriate techniques, processes and procedures to gather relevant data from differently abled middle childhood learners in inclusive and multi-grade setting in order to support their learning.											
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Student teachers have knowledge about characteristics of the types of authentic or performance assessment.											
<b>Possible barriers to learning in the lesson</b>	Students may not be familiar with the various inclusive settings in the classroom.											
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ √ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>					
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<b>Face-to-face:</b> Concept mapping/cartooning to discuss descriptive statistics and its application in interpreting assessment results. <b>Seminar:</b> Students participate in a seminar session. <b>Independent study:</b> student teachers discuss the use of feedback obtained from assessment											
<ul style="list-style-type: none"> <li><b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li><b>Write in full aspects of the NTS addressed</b></li> </ul>	Demonstrate the understanding and use of norm-referenced and criterion-referenced modes of interpreting tests and manage data gathered on various aspects of the learners <b>(NTS 3p)</b> .											
<ul style="list-style-type: none"> <li><b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li><b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>		<b>Learning Indicators</b>				Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 8. demonstrate understanding and use of norm-referenced and criterion-referenced modes of interpreting tests and manage data gathered on various aspects of the learners <b>(NTS 3p)</b> .		<ul style="list-style-type: none"> <li>Collect data on various aspects of learners with different tools, analyse and provide feedback to support learning of diverse learners.</li> <li>Demonstrate how norm-referenced and criterion-referenced modes of interpreting tests are used.</li> </ul>				Communication skills: through group presentations Personal development: Learning about assessing project work Respect and diversity: collecting data on various types of learners					
<b>Topic Title:</b> Data presentation and Interpretation of tests and authentic assessment data	<b>Sub-topic</b>	<b>Stage/time</b>		<b>Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.</b>								
				<b>Teacher Activity</b>				<b>Student Activity</b>				
	Introduction	20 minutes		<b>Face-to-face</b> Reviews RPK using questions and answers.				<b>Face-to-face</b> Provide relevant answers to questions posed and applying the knowledge gained during previous class practical activities.				

	Norm reference and criterion reference interpretation	30 minutes	<b>e-learning opportunities and independent learning</b> Guide student teachers to search for the meaning of criterion and norm referencing. Let them think-pair and share with peers and whole class. Use cases and illustrations to explain concepts	share findings with peers and whole class
	Types of feedback	30 minutes	<b>Face-to-face:</b> Tutor uses concept mapping/cartooning discuss types of feedback obtained from assessment	<b>Face-to-face:</b> Student teachers participate in lesson and use their previous class practical activities to answer questions.
	How to use feedback	60 minutes	<b>Seminar:</b> Tutor invites two other tutors to serve as resources persons and discuss how to use feedback obtained from assessment with class. The class must discuss how to analyse and use results to support learning of diverse learners.	<b>Seminar:</b> Student teachers participate in the sessions.
	Conclusion of lesson/evaluation	40 minutes	<b>Practical Activity:</b> Tutor assign students into groups based on their Halls they belong to in their college. They discuss all the subtopics in the course and provide a brief presentation of what they have learnt.	<b>Practical Activity:</b> Students participate in groups and reflect their experiences in their journals.
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<p>a. Assignment (Each should NOT be more than 400 words)</p> <p>i. Reflective note on early grade expectations in the pre-tertiary curriculum.</p> <p>ii. Developing learning indicators across domains of early grade learners</p> <p>iii. An inventory for measuring various competencies and abilities across domains of early learners</p> <p>(core skills to be developed: critical thinking, respect for diversity, digital literacy, collaboration and communication, personal development)</p> <p>Assesses Learning Outcomes: CLO 4, 5 and 6 (Unit 4, 5 and 6)</p> <p><b>NTS addressed:</b></p> <p>1a: Critically and collectively reflects to improve teaching and learning.</p> <p>2a: Demonstrates familiarity with the education system and key policies guiding it.</p> <p>2b:Has comprehensive knowledge of the official school curriculum, including learning outcomes</p> <p>3k: Integrates a variety of assessment modes into teaching to support learning.</p> <p>3n: Keeps meaningful records of every learner and communicates progress clearly to parents and learners.</p> <p>3o: Demonstrates awareness of national and school learning outcomes of learners.</p> <p>3p: Uses objective criterion referencing to assess learners.</p>			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>,</li> </ul>			

	<p><a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</p> <ul style="list-style-type: none"> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> </ul>
<b>Required Text (core)</b>	<p>Asamoah-Gyimah, K., &amp; Anane, E. (n.d.). <i>Assessment in basic schools</i>. Cape Coast. Institute of Education.</p> <p>Eshun, P., &amp; Effrim, P. K. (2008). <i>Basics in measurement, evaluation and statistics in education</i>. Cape Coast: Yaci Publications</p> <p>Tamakloe, E. K. Amedahe, F. K., &amp; Atta, E. T. (2005). <i>Principles and methods of teaching</i>. Accra: Black Mask Ltd</p>
<b>Additional Reading List</b>	<p>Alonge, M. F. (2004). <i>Measurement and evaluation in education and psychology</i> (2nd ed.). Ado-Ekiti: Adedogo Pub. Co.</p> <p>Anastasi, A. (1982). <i>Psychological testing</i> (6th ed.). New York: Macmillan Publishing Inc.</p> <p>Archer, F. K. (2002). <i>Measurement and evaluation in education</i>. Kumasi: Paks.</p> <p>Burke, J. &amp; Larry, C. (2008). <i>Educational research: Quantitative, qualitative, and mixed approaches</i>. New York: Sage Publication.</p> <p>Carey, L. M. (2001). <i>Measuring and evaluating school learning</i>. Boston: Allyn Bacon.</p> <p>Gronlund, E. (2003). <i>Assessment of students' achievement</i>. (7th ed.). Boston: McGrawHill.</p> <p>Nitko, A. J. (2001). <i>Educational assessment of students</i> (3rd ed.). New Jersey: Prentice-Hall.</p> <p>Onivehu, A. O. &amp; Amoah, S. A. (2002). <i>Essentials of measurement and evaluation</i>. Accra: K. 'N' B. Publishers.</p>
<b>CPD needs</b>	Data presentation and Interpretation of tests and authentic assessment data

## LESSON 12

Year of B.Ed.	3	Semester	2	Place of lesson in semester	1 2 3 4 5 6 7 8 9 10 11 <b>12</b>						
<b>Title of Lesson</b>	Review of lessons and portfolio Assessment				<b>Lesson Duration</b>	<b>3 Hours</b>					
<b>Lesson description</b>	This session is meant to review all semester topic and identify key issues in assessment in early grade education that require further clarification. Various assignments given for submission will also be examined and suggestions provided where necessary.										
<b>Previous student teacher knowledge, prior learning (assumed)</b>	Students have been exposed to various topics and concepts in assessment in early childhood education										
<b>Possible barriers to learning in the lesson</b>	Student teachers may be having misconceptions about the non-use of traditional assessment practices in early grade										
<b>Lesson Delivery – chosen to support student teachers in achieving the outcomes</b>	<b>Face-to-face [ √ ]</b>	<b>Practical Activity [ √ ]</b>	<b>Work-Based Learning</b>	<b>Seminars [ √ ]</b>	<b>Independent Study [ √ ]</b>	<b>e-learning opportunities [ ]</b>	<b>Practicum</b>				
<b>Lesson Delivery – main mode of delivery chosen to support student teachers in achieving the learning outcomes.</b>	<b>Face-to-face:</b> Concept mapping/cartooning to discuss descriptive statistics and its application in interpreting assessment results. <b>Seminar:</b> Students participate in a seminar session. <b>Independent study:</b> student teachers engage with relevant and appropriate previous assessment instruments and discuss validity and reliability issues.										
<ul style="list-style-type: none"> <li><b>Overarching outcome, what you want the student teachers to achieve, serves as basis for the learning outcomes. An expanded version of the description.</b></li> <li><b>Write in full aspects of the NTS addressed</b></li> </ul>	Demonstrate the understanding and use of norm-referenced and criterion-referenced modes of interpreting tests and manage data gathered on various aspects of the learners (NTS 3p).										
<ul style="list-style-type: none"> <li><b>Learning Outcome for the lesson, picked and developed from the course specification</b></li> <li><b>Learning indicators for each learning outcome</b></li> </ul>	<b>Learning Outcomes</b>		<b>Learning Indicators</b>			Identify which cross cutting issues – core and transferable skills, inclusivity, equity and addressing diversity. How will these be addressed or developed?					
	CLO 8. demonstrate knowledge and understanding of the use of various assessment practices in early grade education gathered on various aspects of the learners (NTS 3p).		<ul style="list-style-type: none"> <li>Collect data on various aspects of learners with different tools, analyse and use results to support learning of diverse learners.</li> <li>Design differentiated assessment for learners with SEN in inclusive settings.</li> </ul>			Communication skills: through group presentations Personal development: Learning about assessing project work Respect and diversity: collecting data on various types of learners					
<b>Topic Title:</b> Data presentation and Interpretation of tests and authentic assessment data	<b>Sub-topic</b>	<b>Stage/time</b>		<b>Teaching and learning activities to achieve outcomes depending on the delivery mode selected. Teacher-led collaborative group work or independent.</b>							
				<b>Teacher Activity</b>			<b>Student Activity</b>				
	Introduction	20 minutes		Use talk for learning approaches to review student teachers understanding of various topics treated and assignments given			Take part in review by providing responses to questions				

		2 hours 20 minutes	Let students present various assignments and projects given for submission and ask questions for clarification where necessary. Make inputs to enrich presentations.	Present various projects and reflective notes and ask questions for clarification. Incorporate suggestions to enrich the work.
		20 minutes	Review the day's activities and summarise	Respond and ask relevant questions for
<b>Lesson assessments – evaluation of learning: of, for and as learning within the lesson</b>	<b>End of semester should cover selected topics from lessons 1 to 11</b> NTS 3 k) Integrates a variety of assessment modes into teaching to support learning. l) Listens to learners and gives constructive feedback. m) Identifies and remediates learners' difficulties or misconceptions, referring learners whose needs lie outside the competency of the teacher. n) Keeps meaningful records of every learner and communicates progress clearly to parents and learners. o) Demonstrates awareness of national and school learning outcomes of learners. p) Uses objective criterion referencing to assess learners.			
<b>Instructional Resources</b>	<ul style="list-style-type: none"> <li>• TESSA Online Educational Resources (<a href="http://www.tessafrica.net">www.tessafrica.net</a>)</li> <li>• T-TEL Modules (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>• The iBox (CENDLOS)</li> <li>• YouTube</li> <li>• Transforming Teacher Education and Learning (2016). <i>Group work: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Transforming Teacher Education and Learning (2016). <i>Questioning: Professional development guide for tutors</i>. Accra. Ministry of Education (<a href="http://www.t-tel.org">www.t-tel.org</a>).</li> <li>• Other Relevant Online Resources (<a href="http://www.Tess-india.net">www.Tess-india.net</a>, <a href="http://www.oerafrica.org">www.oerafrica.org</a>, <a href="http://www.futureLearn.com">www.futureLearn.com</a>, <a href="http://www.telmooc.org">www.telmooc.org</a>, <a href="http://www.col.org">www.col.org</a>, Khan academy)</li> <li>•</li> </ul>			
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<b>CPD needs</b>				
<b>Course Assessment</b>	<sup>2</sup> <b>Component 1: Subject Portfolio Assessment (30% overall score)</b> <ul style="list-style-type: none"> <li>• Selected items of students work (3 of them -10% each) = 30%</li> <li>• Midterm assessment = 20%</li> <li>• Reflective Journal = 40%</li> </ul>			

	<ul style="list-style-type: none"><li>• Organisation of the subject portfolio = 10% (how it is presented /organised)</li></ul> <p><b>Component 2: Subject Project: (30% overall semester score)</b></p> <ul style="list-style-type: none"><li>• Introduction, a clear statement of aim and purpose of the project = 10%</li><li>• Methodology: what the student teacher has done and why to achieve the purpose of the project = 20%</li><li>• Substantive or main section = 40%</li><li>• Conclusion = 30%</li></ul> <p><b>Component 3: End of semester examination = 40%</b></p>
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