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Do the Standards Align?

A Comparison of the Cambridge International AS and A Level Global Perspectives & Research syllabus (9239) and the US Common Core State Standards

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Introduction

The aim of this report is to see if there is any significant alignment between the level of skills and competencies of graduates of *Cambridge International AS and A Level Global Perspectives & Research (GPR)* course and those expected of graduates following programs designed to meet the requirements of the US *Common Core State Standards (CCSS)*. The report begins by addressing the aims and priorities of both approaches to learning and then examines how much alignment there is between the *Cambridge International AS and A Level Global Perspectives & Research syllabus (9239)*¹ and the standards in some subject specific statements of *Common Core State Standards*. It concludes with some comments on similarities and differences between the two approaches.

Aims and priorities

They share a common view of the successful graduate

1. The two approaches share an image of a successful graduate as someone ready for work or further study. The Common Core standards are designed to develop ‘students who are college and career ready’. Students will have demonstrated independence and built strong content knowledge. They will be able to respond to different audiences, tasks and disciplines as well as value and evaluate evidence, understand different perspectives and cultures use technology and digital media well and strategically, and understand as well as critique arguments and points of view. (*Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science and Technical Subjects (CCELA)* p.7 www.corestandards.org/wp-content/uploads/ELA_Standards.pdf)
2. Global Perspective & Research students are expected to have acquired ‘the skills and dispositions to be able to think critically...deconstruct arguments, differentiate between the ways in which people express their perspectives , views and arguments, assess and evaluate claims and develop strong lines of reasoning.’ (*GPR syllabus* p.5 www.cie.org.uk/images/170902-2015-2016-syllabus-.pdf).

¹ * Syllabus 9239 for examination at AS Level only in June and November 2015, and at AS & A Level in June and November 2016.

They share an emphasis on critical analysis

3. Both approaches to learning put a priority on critical analysis and the individual's intellectual development. The Common Core standards are written assuming that as a student progresses, text or content increases in complexity, as does the student's capacity to comprehend the material and discern its strengths and weaknesses. They also assume that a student will become increasingly able to marshal and use evidence, work in teams with peers and independently and become more and more adept in oral communication and listening carefully to ideas and explanations. (*CCELA* p.8). The English Language Arts and Literacy standards are grounded on an 'integrated model of literacy' even though it divides literacy into four strands to make the argument more accessible. It is also grounded on an 'interdisciplinary approach to literacy' where learning experiences in many fields contribute to the development of a student's literacy competence (*CCELA* p.4).
4. The *GPR syllabus* (9239) is skill based rather than content based but places a similar emphasis on a student developing competence in evaluating the 'reliability and usefulness and use of evidence' and other research skills. At A Level the *GPR syllabus* offers a student the opportunity to undertake 'independent, proactive interdisciplinary study' (*GPR syllabus* p.6). A key element of the syllabus is the 'critical path ...an iterative learning process ...that provides an effective approach to interrogating information, exploring different perspectives and communicating' conclusions and findings. It helps learners acquire 'valuable thinking and reasoning skills for use in higher education and for a wide range of careers'. (*GPR syllabus* p.16).
5. The Common Core standards are tied to College and Career Readiness standards. These are very explicit in the case of English Language Arts and Literacy. For example there are ten anchor standards for reading which underpin a high school graduate's 'ability to evaluate intricate arguments and the capacity to surmount the challenges posed by complex texts'. (*CCELA* p.35).
6. The *GPR syllabus* is anchored on a similar view of readiness. It aims to 'equip candidates with a coherent theoretical and practical basis of transferrable skills and key knowledge suitable for future careers including law, scientific research, medicine and academic research.' It is also aimed at helping students' progress 'directly to university courses in a range of subjects'. (*GPR syllabus* p.7).

Alignment between the sets of standards

Congruence between the sets of standards

7. This shared aspiration; to ensure students are ready for work or study by guiding the development of an individual's capacity for critical thinking is the basis for some shared intellectual standards. These can be discerned from the more detailed program descriptions of the two curricula statements.
8. After close scrutiny of the Common Core materials it seems that the most relevant comparators for the *GPR syllabus* are the standards in the English Language Arts and Literacy in History/Social Studies, Science and Technical subjects. The most appropriate stage for comparison is Grades 11 and 12, the terminal years of secondary schooling that generally lead to work or further study. This is the same population that would provide most candidates for GPR studies.
9. Common Core standards for Mathematics are less amenable to comparison with the *GPR syllabus*. The Mathematics standards identify eight 'standards for mathematical practice' which 'describe varieties of expertise' which mathematically proficient graduates will have mastered. These practices are broad capabilities such as making sense of problems; reasoning abstractly and quantitatively; and constructing 'viable arguments and critique(ing) the reasoning of others' (*CCELA* p.6) The *GPR syllabus* refers to similar capabilities at a similar level of generality.
10. Looking for more detailed, finer grained, points of comparisons between the *GPR syllabus* and Common Core standards for Mathematics is constrained by the way the latter are arrayed. At the high school level the Common Core standards for Mathematics cover grades 9 to 12 as a set rather than distinguishing standards for each grade or the final two grades. They also contain material that 'all students should study in order to be college and career ready' as well as material for those aspiring to take advanced courses in areas like calculus. The Mathematics standards are more content specific than the English Language Arts and Literacy standards. They are organised in six conceptual categories, three of which, Number and Quantity, Modelling, and Statistics and Probability, specify capabilities and skills that are akin to skills and attributes that are developed through the *GPR syllabus*.

English Language Arts and Subject Literacy and GPR

11. The Common Core Standards for English Language Arts and Literacy in History/Social Studies, Science and Technical subjects is a complex although accessible document. The complexity comes from the breadth of disciplines covered and from the use of separate strands for Reading, Writing, Speaking and

Listening, and Language for Language Arts with separate statements for Reading and Writing in the particular subject domains.

12. To manage this complexity here the comparisons are drawn at two levels. Firstly comparisons are made between the *GPR syllabus* aims and the College and Career Readiness anchor standards as they are of a similar level of generality. Secondly comparisons are made between the GPR assessment objectives and detailed Common Core standards for particular strands in English Language Arts and then for the Literacy strands for the subjects.
13. *GPR syllabus* aims include ‘developing skills of argumentation and oral justification, in research methodology, critical thinking, reasoning’ and in managing a ‘sustained piece of academic work’ (*GPR syllabus* p.9). Similar aims are embedded in the anchor standards for English Language Arts and Literacy which expect students to be able to ‘integrate knowledge and ideas’, ‘become adept at gathering information...reporting findings from their research’ (*CCELA* p.41) and orally ‘present information, findings and supportive evidence ...(in a) style ...appropriate to task, purpose and audience’.(*CCELA* p.48).
14. The finer grained comparisons also show similarities between the two sets of standards. For example in the Reading strand, the standards for reading informational material (RI), which emphasises non-fiction and covers material likely to be found in the sciences, history, social sciences and technical subjects, require students to ‘delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence relevant and sufficient, identify false statements and fallacious reasoning’ (*CCELA* p.40). This is elaborated in the Writing strand, particularly in the research domain which asks students to ‘assess the strengths and limitations of each source (of information) in terms of task, purpose and audience’. (*CCELA* p.46).
15. The GPR syllabus sets out assessment objectives which include ‘analyse arguments to understand how they are structured and on what they are based’ and ‘critically evaluate the strengths, weaknesses and implications of reasoning in arguments and overall perspectives’. (*GPR syllabus* p.13).
16. There are other important points of similarity in expectations set out for students oral and aural skills. For example the anchor standards for Speaking and Listening in the domain of ‘comprehension and collaboration’ refer to the ability to integrate and evaluate ‘information presented in a diverse media and formats including visually, quantitatively and orally’ and to ‘evaluate a speaker’s point of view, reasoning and use of evidence and rhetoric.’ The student should be able to ‘make comparisons and contrasts, and to analyse and synthesise a multitude of ideas in accordance with the standards of evidence appropriate to a particular

discipline'.(CCELA p.48).

17. These are elaborated in the Common Core standards for Speaking and Listening (SL) which refer to verifying, clarifying and challenging ideas and promoting 'divergent and creative responses' and integrating 'multiple sources of information' in 'diverse formats and media'. (CCELA p.50).
18. The assessment objectives in the *GPR syllabus* require the learner to be able to 'synthesise relevant and credible research' from a range of materials, 'critically evaluate the nature of different arguments' and 'use research to support judgments about arguments and perspectives'. (*GPR syllabus* p.13).
19. From these examples it is clear that there is significant shared ground between the *Common Core State Standards for English Language Arts* and the *Cambridge International AS and A Level Global Perspectives & Research syllabus*, particularly in the standards for Informational texts.
20. There is further shared ground in between the *GPR syllabus* and the particular standards for literacy in History and Social Studies and for Science and Technical subjects. This is the case for the anchor standards which state that college and career ready students are expected to be familiar with field specific language and norms and conventions and have the 'capacity to evaluate intricate arguments, synthesize complex information' and 'differentiate primary and secondary sources' (CCELA p.60). The reading standards for History (RH) specify that the student is expected to be 'evaluate various explanations' and 'determine which...best accords with textual evidence' and acknowledge where this uncertainty. There is further stress placed on the important of evaluation and integrating multiple sources and forms of information and identifying discrepancies and differences (CCELA p.61). Similarly in the reading standards for Science and Technical subjects (RST) there is an expectation that the student will be familiar with the fundamentals of scientific methods and able to 'evaluate hypotheses, data analysis and conclusions in a science or technical text' and able to 'synthesize information from...texts, experiments, simulations' and other sources (CCELA p.62).
21. There are similar extensions set out for writing in History and Social Studies and for Science and Technical subjects (WHST). These include writing 'arguments focused on discipline specific content' (CCELA p.64) and creating texts that explain processes and conclude with a statement that follows from the evidence and argument presented in the preceding narrative (CCELA p.65).
22. These standards are echoed at various points in the *GPR syllabus*. The syllabus overview refers to evaluating arguments and evidence, the assessment objectives

instance selecting and analysing appropriate concepts and 'evidence from a range of source materials' and providing an 'oral explanation and justification of ...findings' (*GPR syllabus* p.13). Additionally the GPR critical path process includes exemplar questions which suggest that the student look at the 'strengths and weaknesses of arguments, reasoning and claims' (*GPR syllabus* p.16) and the credibility and reliability of evidence and sources (*GPR syllabus* p.17) using the conventions of the field of study.

23. Overall the English language arts and the subject literacy standards and the GPR assessment objectives align. This is so for the College and Career readiness aims and the GPR syllabus aims. There are also similarities between the standards set for particular strands like reading and the GPR requirements for analysing arguments and mastering the critical path used to examine evidence and form conclusions.

Mathematics and Global Perspectives & Research

24. The three conceptual categories, Number and Quantity, Modeling, and Statistics and Probability set standards that are also found in the *GPR syllabus* and assessment objectives. For example the overview of 'Quantities' illustrates the way in which real world problems call for quantification processes that use 'numbers with units' like per-capita income and road fatalities per vehicle-mile traveled (*CCELA* p.58). The learner is expected to be able to 'reason quantitatively and use units to solve problems' (*CCELA* p.59). In Statistics and Probability the learner is expected to make inferences and justify conclusions, 'understand...processes underlying statistical experiments' and 'justify conclusions from sample surveys ...and observational studies'. (*CCELA* p.80). Similar expectations are implicit in the overview of research methods that can be used by GPR candidates in preparing the research report that is a large part of the assessment process, which refers to quantitative methods and surveys and experiments that are appropriate to the main discipline relevant to the topic (*GPR syllabus* p.29).
25. The Modeling category of the Common Core Standards for Mathematics links mathematics to 'everyday life, work and decision making' in fields as diverse as public policy, emergency relief and pandemics. It outlines a 'basic modeling cycle' of problem specification, model formulation, computation and quantification, interpretation, validation of conclusions and reporting, (*CCELA* p.72). This is a learning and analytical construct like the iterative processes of deconstruction, reconstruction, reflection and communication and collaboration in the GPR's Critical Path (*GPR syllabus* p.16). The difference is that the Modeling standards give greater prominence to quantification because it is focused on one academic domain rather than the multiple disciplines covered by the *GPR syllabus*.

26. While these are real and observable points of congruence between the Common Core standards for Mathematics and the *GPR syllabus* requirements, the differences in breadth of coverage, four school years and advanced courses in Mathematics versus two years in GPR, and the level of abstraction needed to reflect the interdisciplinary focus of GPR versus the specificity of language for the single discipline of mathematics makes comparison difficult.

Conclusion

27. Although they differ in coverage, with the Common Core being discipline specific and GPR being interdisciplinary, and in academic orientation with the Common Core being content oriented and GPR being skills directed, the two programs have some striking similarities. They share a common aim; student readiness for further study and work. Both programs value critical analysis and the individual's capability for evaluating and synthesising different sets of information, drawn from a variety of sources and presented in diverse forms.

28. The syllabus aims of GPR and the anchor standards of Common Core's English Language Arts cover the same important skills of reasoning and communication. The assessment objectives of GPR are similar to the standards expected in strands like Reading and Writing and subject literacy in the Common Core. The Mathematics Common Core standards and GPR both stress the importance of using research methods and a logical model of analysis to address real world problems.

29. Looking across the two sets of standards it is reasonable to conclude that have a shared conception of "readiness" for further study or embarking on a career that is expressed in sets of skills, competencies and capabilities that are basically alike and of a similar level of intellectual difficulty. This is most immediately discernible in the comparison of GPR and English Language Arts and subject literacy.

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