

Tuition time in upper secondary education (16-19): Comparing six national education systems

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Introduction

The amount of tuition offered by sixth form colleges (SFCs) in England is being constrained by recent funding decisions made by the Government. SFCs receive a base-line amount of £4000 per student and small additional amounts according to the size of student programmes and particular needs. The same amount is received by 11-18 schools, but they retain the opportunity to cross-subsidise from earlier years to support their sixth form provision. SFCs have traditionally tried to offer a curriculum that is broader than a three A Level diet, but this is proving to be very challenging in the current economic and political climate.

As part of a review of the issue of funding the post-16 curriculum, the Sixth Form College Association (SFCA) asked the UCL Institute of Education (IOE) to undertake a brief review of how the current situation in England, in terms of hours of tuition per week, compares with upper secondary education in other relatively high performing education systems.

In this paper, therefore, we compare the current situation in English upper secondary education (16-19 education in the case of sixth form colleges) with that of countries representing three global models of education (Sahlberg, 2007) – *Pacific* (Shanghai, China; Singapore), *Nordic* (Alberta, Canada; Sweden) and *Anglo Saxon* (New South Wales, Australia; England) in order to draw out the key dimensions of support for learning in this important transitional phase of education.

In terms of the paper's methodology, the data presented have been derived from academic literature, policy documents and on-line sources, but also an interview with Swedish civil servants. The differing nature of educational systems and the methods of data collection and reporting means that the primary data used for this paper exist in several different forms (e.g. annual entitlements for tuition; the number of lessons per week; the amount of credit required for a graduation diploma/certificate and, in some cases, the amount of time allocated per lesson or unit). Deriving the number of hours of tuition per week across different education systems and different data sets, therefore, has required the triangulation of these various pieces of evidence, together with a very broad assumption that there are 38 weeks in an academic year.

Five countries and states compared

Shanghai and the requirements of the 2010 curriculum plan

According to the 2010 Plan, the curriculum in Shanghai has three components: a basic compulsory curriculum; an enriched, mainly elective, curriculum; and an inquiry-based, outside school hours, curriculum. As part of the last element, students conduct research, the aims of which are to help them 'learn to learn', think critically and creatively, do community service and promote social welfare. Shanghai's plan for educational reform and development for 2020 calls for an increase in school-based curricula as well as a credit system at the senior secondary level to make learning more individualized and flexible (OECD, 2010).

The upper secondary curriculum encompasses Grades 10 to 12 and there are 35 lessons per week for each of these three years. The curriculum in Grade 12, which is the most specialized, is based on eight 'Fundamental Subjects' (Chinese, Mathematics, English, Science, Thoughts and politics, Society, Arts and PE) that occupy 19 lessons per week. In addition, there are 'Extended Subjects and Activities' that allow for greater specialization or new or collective forms of learning. These occupy 14 lessons each week. Finally, there are research-based subjects that take two hours per week. Overall, there is a total of 35 lessons per week to which is added one extra hour per day for meetings and physical exercise.

Lower and upper secondary education offer broadly the same number of lessons (34 and 35) per week, but the upper secondary curriculum contains fewer fundamental subjects and more extended subjects. Schools must guarantee that extended subjects and research-based subjects will be taught, with fundamental subjects not exceeding a total of 27 lessons per week. Furthermore, in Shanghai there is a tradition of a long school day of up to 9 hours before the allocation of homework. The working assumption, therefore, is that students receive at least 30+ hours per week of tuition and possibly more.

Singapore – 16-18+ post-secondary in junior colleges

The upper secondary curriculum in Singapore is based on core examination subjects; elective examination subjects and compulsory non-examination subjects:

- Core examination subjects – General Paper and Chinese/Malay/Tamil (8 hours per week).
- Elective subjects – students choose 3-4 subjects at one of three levels from a broad offer not unlike the number of subjects offered in a large school sixth form or sixth form college (4-6 hours per subject per week).
- Compulsory non-examination subjects – Assembly, physical education and character development programme (4 hours per week) (Isaacs *et al.*, 2015)

The Singapore upper secondary education curriculum looks quite specialised compared with Shanghai, but the combined effects of its core, elective and compulsory non-examined subjects and programmes raises the number of hours overall to between 27 hours per week for those taking three elective subjects and 32 hours for those taking four. The duration of study is either two or three years.

Alberta, Canada and the requirements of the Alberta High School Graduation Diploma

The Alberta education system has gained an international reputation for its choice-based, yet highly professionalized and public approach to education. Educationalists and politicians from different positions on the political spectrum have used Alberta as a reference point for international comparison.

The High School Graduation Diploma (here the example of the English Diploma) is based on 100 credits taken from a wide range of compulsory subjects - English

Language Arts, Social Studies, Mathematics, Science, Physical Education and Career and Life Management. A further 10 credits can be attained by studying a combination of additional courses including a second language and fine arts and 10 more credits from an additional set of practical options, including an apprenticeship programme and special projects (Alberta Education, 2014)

Most senior high school courses are offered for 3, 4, or 5 credits, but some courses may be offered for 10 credits. Each student must have access to at least 25 hours of instruction per high school credit. Overall, junior high school students must have access to a minimum of 950 hours of instruction per year per grade and senior high school students, a minimum of 1,000 hours of instruction per year. These are spread across 190+ instructional days, which is about 5-5.5 hours per day (Statistics Canada, 2015), totaling about 26 hours per week.

Sweden and the requirements of three-year National Programmes

In Sweden upper secondary education is structured primarily through three- year National Programmes. Students in the vocational programmes are entitled to up to 2430 hours over three years and those opting for the academic higher education preparation programmes, 2180 hours¹. The entitlement to these programmes continues to 20 years of age.

Each national upper secondary education programme covers nine foundation subjects – English, history, physical education and health, mathematics, science studies, social studies, Swedish or Swedish as a second language and religion. In addition, a number of subjects specific to a given programme are chosen. There is also a Diploma project and workplace-based learning in vocational programmes.

This very broad core structure applies to both vocational and HE preparation courses. Vocational students have to study 30 per cent general education using the same early modules as in HE preparation, but taken at a slower pace. HE preparation students have more modules in the area of general education, while vocational courses have an extra 300 hours over three years because of the need to study general education and vocational specialisms.

Assuming 38 instructional weeks per year, students in the general programmes receive about 19 hours of tuition a week and those in VET programmes 21 hours. The crucial point to note, however, that this entitlement is for three years and not two.

New South Wales and the requirements of the Higher School Certificate

In New South Wales, Australian students in Years 11 and 12 aim for a Higher School Certificate (HSC). The only compulsory subject is English. Courses are expressed in units; most of them are two units. To be eligible for the award of the HSC a

¹ These data were derived from an interview with civil servants from the Swedish Ministry of Education and Research, 13 January 2015.

student must have satisfied the requirements in at least 12 preliminary level units, and at least 10 HSC level units, with the additional requirements that:

- at least 2 must be English units
- at least 6 units must be Board of Studies-developed courses
- at least 3 courses are of 2-unit or greater value
- at least 4 subjects have been completed
- no more than 6 units of science are studied.

Students can take additional units, each with a value of 1 unit, and schools must provide them with a 25-hour personal development and health education course, *Crossroads* (Isaacs *et al.*, 2015).

Two-unit modules (which comprise the main components of the HSC) involve 4 hours of formal tuition per week. The requirement for 12 units in the Preliminary Year thus suggests a minimum learning programme of 24 hours per week and for 10 units in the HSC Year a minimum of 20 hours.

English sixth form colleges – the requirements of A Levels and BTEC awards

A Level students, who constitute the majority of upper secondary learners, typically take 4 AS subjects in the first year dropping down to 3 A2s in the second year of study. However, a 3 A level model is becoming increasingly common and will become the norm in the sector from 2017/18. Each subject has about 4.5 guided learning hours per week, although this varies by institution. A 3 A level programme taken over 38 weeks would lead to 513 hours tuition per year. In addition, there is usually at least an extra hour of tutorial time and there can be enrichment activities. So it is possible for a student to receive between 15 – 17 hours of tuition per week.

Discussion

In summary, our findings suggest that upper secondary curricular and graduation arrangements in other advanced economies and societies, regardless of the type of global model of education, generally require a wider range of subjects and additional experiences and breadth for matriculation when compared with England. The driving influences on the breadth and volume of the curriculum and the level of resource allocated differ in each national case, but the overall result is the same – other countries invariably have larger programmes of study.

The forces shaping the upper secondary curriculum in these systems are varied and include:

- national entitlements to study (Sweden and Alberta), together with the requirements of a graduation diploma or leaving certificate;
- the credit requirements of a high school matriculation certificate and the hours attached to each unit (New South Wales and Singapore);
- a broad and highly prescriptive programme of study together with a culture of long working hours (Shanghai);

- an entitlement to three years of study (Sweden).

These forces appear to lead to three global patterns of tuition. The first is *high hours* (30+) often supplemented by homework and private tuition. This 'pressure cooker' approach, epitomized by the Asian/Pacific systems, is seen by many as the key to success in PISA global league tables. The second is *medium/high hours* that are the result of graduation diploma/certificate requirements, often expressed in terms of units of achievement, each of which has a required number of hours of tuition and, in some cases, is reinforced by a national entitlement (Alberta and New South Wales). New South Wales, a member of the Anglo Saxon model, is at the lower end of this range. The third model (Sweden) is *medium to low annual hours, but extended over three years*. This model may prove to be the most inclusive because it explicitly provides support for middle and lower attainers who may find high volumes of study difficult and who require more time.

The English system, *low hours and short duration*, constitutes a fourth and very different model. Its historical origins mean that it stands out as different internationally having a system of tuition designed for an elite where the assumption was that a narrow range of specialist subjects, studied over two years to meet the requirements of three-year subject specialist university degrees, could be supplemented by co-curricular activities. The introduction of *Curriculum 2000* in 2000 and the extra AS in the first year of A Level study has led to a small increase in curriculum breadth in the first year of student programmes. In terms of full-time vocational courses in the 1990s, under FE Incorporation, face-to-face tuition was reduced and has not fully recovered. The recent move to '16-19 Study Programmes' that require post-16 English and Mathematics for some underachieving students, a large vocational or general qualification, work experience, personal or study skills, and support in choosing options to ensure progression into employment and higher education (HE)² will necessitate a small increase in the size of programmes. However, this amounts to only a notional 600 hours for a three A Level programme (Igoe, 2015).

As a result of system tradition and more recent policy in England there is no national entitlement in terms of hours of study nor a baccalaureate-type award nor a units and credit system, all of which could boost the volume of study programmes. Moreover, unlike other national systems where the amount of tuition actually increases in upper secondary education when compared with the lower secondary phase, the English experience is the opposite. The sharp reduction in the number of subjects studied post-16 (an average of four subjects, now reducing to three) compared with pre-16 (10+ GCSEs or vocational equivalent) appears to represent a sudden movement to a part-time curriculum. English upper secondary education thus remains uniquely narrow and short when compared with other relatively successful systems.

²https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/493452/16_to_19_study_programmes_departmental_advice_Jan_2016_update.pdf

As the English upper secondary phase has expanded, a move confirmed by the Raising of the Participation Age, so it is attracting more students who require greater support and longer durations of study. While there is no known correlation between the number of hours studied in upper secondary education and performance as narrowly measured by PISA (Isaacs *et al.*, 2015); we would argue that the English system being so short of what appears to be an international norm for advanced economies runs the risk of being damaging to the capacities of young people.

In response, the way to go initially might not be a large increase in the number of subjects to be studied, although there is a strong case for a role for mathematics, English and a modern foreign language up to the age of 18/19, together with greater attention to what are referred to as 21st Century Competences (Halász and Michel, 2011). All systems included in this small comparative study are allocating increased time and resource to fostering student capacity to undertake research and project work and to engage in citizenship activities and the workplace. The answer for England could well be the development of a baccalaureate-style award that prioritises these capacities in addition to specialist study, sees a modest increase in hours of tuition and, crucially, moves towards a longer upper secondary phase that would offer particular benefits to those learners who could achieve a good Level 3 award if given more time and support.

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