

Executive Summary

**Credit Accumulation and Transfer, and the Bologna
Process: an Overview**

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1. This report describes and evaluates credit accumulation and transfer systems (CATS), and concludes that they can help further lifelong learning, improve and widen participation and reduce non-completion. And they could help achieve the EU's goal of increasing student mobility between European universities. However, a key aspiration that some have – that CATS may provide a guarantee that students can automatically transfer between participating institutions – is a mirage even where CATS are currently well established.

2. The report also concludes that the most effective way for CATS to help achieve these goals is in the context of specific agreements between individual institutions or groups of like-minded institutions to articulate their courses and recognise the learning experiences each provides to students of the other. That is in contrast to the direction that mainstream CATS developments are taking, which are focusing on increasingly bureaucratic structures – particularly the quest to define commonly acceptable 'outcomes' for each course and module - which risk undermining the whole enterprise. Finally, the UK has nothing to fear from the way ECTS are going: in particular there seems no reason why the English model of a three-year Bachelors degree, followed by a one-year Masters, should not continue.

Concepts

3. Fundamental to the concept of CAT systems is modularization, which is described by Smith and Bradley as "the idea that the curriculum can, and even should, be broken down into more discrete units of accessible study". Even the most holistic degree programme is broken down into more or less discrete units. The amount of freedom that students have to combine diverse modules to achieve a degree is an important issue that is much debated, as are the assessment rules, but even where, for example in a single honours degree, a student has to select from a number of limited choices, the degree is nevertheless broken down into modules, whether explicitly or not. Viewing a degree course as modular helps make it transparent and helpfully requires those designing the course to exercise rigour and transparency in its design.

4. Whereas modules are a curricular device - to divide the curriculum into logical and distinct components - credits are quite simply a means of attaching relative values to a course's different components. They are a currency of learning, and in general regarded as a measure of the time typically required to achieve a given curricular outcome.

5. Where credit systems exist, a degree is awarded after accumulation of a certain number of credits. In a three-year degree, one third of that number is available after one year of study, and modules are designed, each with a certain number of credits attached, to enable students who successfully completes these modules to achieve that number of credits in the year.

6. Whether or not a formal credit system operates, if one part of a course takes up more of a term than another, and has more importance attached to it in the examination, then effectively it carries more credit. A formal credit system which assigns credits to course components systematizes this process and makes it transparent. However, CAT systems have ambitions that go further. They are intended to ensure that students can have flexibility of time and place as they work towards their degrees. If students are recognized for the learning that they have achieved when they have completed a module, then they could take a break from their studies and come back subsequently to achieve more credits for further modules. This is what credit accumulation is about.

7. Credit transfer takes this one step further and allows students to move between courses, or to another university, and to have recognized the credits they already have, while achieving further credits at their new institution. A substantial amount of transfer takes place already in the United Kingdom. In 2002-03 over 11,000 of the 300,000 plus students who entered higher education institutions did so having been at a different institution in one of the preceding two years. However, it is believed that most of these students received no credit for their previous studies¹. In general movement occurs

¹ Also in the same year, x students with a Higher National Diploma/Higher National Certificate moved on to a first degree course in England, and most will have done so with credit for their previous studies (i.e. they will not have had to take the first – or in some cases even the second – year of the degree course).

between universities with a similar pedigree (e.g. between new universities or pre-1992 universities), but is much less common between universities with different pedigrees.

8. It is clear that widespread transfer takes place even without formal CAT systems, though it is also clear that transferring students would have benefited from the existence of CAT frameworks (which would have allowed their previous higher education experience more easily to be taken into account).

9. However, even where common systems of credit are in force, these only give an account of the volume of learning achieved. Alone they say nothing about the content, its relevance to other courses that a student may wish to pursue, nor about the standard that the student has achieved. By itself, the adoption of a common credit system will do nothing much to increase the likelihood of student transfer. For this reason, attention has been given to the development of other associated instruments:

i. A framework of levels and level descriptors, which describe the level of the credits achieved - for example for courses at honours degree or diploma level. Universities that operate CATS specify the percentage of credit at each level that is required for each qualification.

ii. The description of learning outcomes, which pre-specify what students learn in each module. As might be expected, it has proved extremely problematic to describe these in a sufficiently sophisticated way to enable universities to assess a student's suitability for entry².

iii. Associated with learning outcomes is the concept of a commonly recognized transcript, which enables students to describe in detail what they have achieved - for example the content of the courses studied and the

² An example of a learning outcome is provided by SEEC in English Literature: "At the end of the module the learner is expected to be able to demonstrate detailed understanding of the influences of the historical and social context within which the chosen text is set, both from the study of the text itself and from the study of other contemporary literature." (SEEC 2001). This of course leaves open the rigour of the judgement about what constitutes 'detailed understanding', which may well differ from university to university.

marks achieved. This is what the Bologna arrangements call the 'Diploma Supplement', and in its more detailed form the 'Transcript of Record'.

10. Finally, while it may be easy enough to assign credits to chunks of learning, it can be far more complicated to agree (even within a single university) how credits combine or can accumulate into the award of a qualification. This is a particularly difficult issue when it comes to agreeing transfers between universities. To enable credits to lead to a qualification there need to be 'rules' to ensure the coherence of the curriculum, related rules to ensure that learning is progressive, rules concerning the number of general as opposed to specific credits³ that are required, rules about the required overall achievement of the student (e.g. whether they need to pass all modules, or if some failures would be accepted), and potentially rules about the shelf-life of credits.

Credit accumulation and transfer in practice

North America

11. Credit systems were first developed in North America, and remain in more extensive use there than elsewhere. In the middle of the 20th century California adopted a Master Plan, which created a three tier system of higher education. The lower-level colleges, which were local, focused on teaching and cheaper than four-year universities, had the explicit function of preparing students for transfer to complete their last two years of a degree at either the University of California or a California State University. A commitment amounting to a guarantee was given to many students undertaking courses at a two-year college that if they completed the requirements of the four-year university they would be able to transfer there to complete their degree.

³ General credits are credits achieved in pursuit of modules not specifically related to the programme concerned.

12. California provides an example of a mature CAT-based system in practice, and there are a number of noteworthy aspects of the arrangements:

- i. The curriculum requirement means that there has to be substantial commonality in the courses of the different universities and colleges.
- ii. Such transfer as occurs takes place largely between colleges and universities. There is relatively little transfer between universities.
- iii. The great majority of transfers are local (between colleges and universities in the same area) and involve a small number of institutions. Most colleges and universities do not have mutual transfer arrangements.
- iv. The conditions that the University of California imposes each year concerning the standards that transferring students must achieve is a considerable qualification of the “guarantee” that community college students have. In recent years the percentage of students represented by transferring students, both to the California State Universities and to the University of California, has reduced (but nevertheless still amounts to more than 50 per cent of all graduates).
- v. In 1998-99 the University of California system accepted only 70 per cent of transfer students who applied, and 50 per cent of applicants actually enrolled.

13. In the words of Smith and Bradley "In the US transfer is not the straightforward concept that many believe. Transfer from community college to university is not an automatic process, and accessibility comes from the development of strong transfer and articulation arrangements between community colleges and state universities". It is clear that the transfer system is not general and widely used but intensive, specific and negotiated bilaterally. Nevertheless, credit transfer remains important in the United States. It is estimated that around one third of students entering higher education in the mid-1990s gained credits from more than one institution, the majority of them

students who began in community colleges. However, there is evidence too that credit transfer has reduced in recent years.

14. British Columbia has taken the Californian model and developed it into what is possibly the most extensive CAT arrangement in the world. As in California, students may do the first two years of a degree programme in a local college and transfer for the final two years to a four-year university. To enable transfer to take place, universities and colleges enter into articulation agreements. These ensure that students entering a college know what courses they need, to be acceptable to a specific university as the first two years of a specific degree programme.

15. Consequently, there is a very close alignment of the curricula of the colleges and universities concerned. And, because there is a one to one relationship between university and college courses, there are some 50,000 articulation agreements. It has taken an enormous effort, and some years, to achieve this, but now the system more or less runs itself.

16. The arrangements in British Columbia have worked well and have opened higher education to students who might not otherwise have been able to attend. Between 30% and 40% of students completing a degree at a four-year institution began their courses in colleges, and transferring students have many characteristics that identify them as people who might otherwise not have entered higher education – e.g. the majority study part-time (compared to 20 per cent of direct entrants), they carry more debt and their average age is significantly older.

17. One remarkable thing about British Columbia's experience is that, despite the fact that transferring students tend to have performed worse in high school, their university grades are only a little lower than those of direct entrants. Moreover five years after leaving university in almost all relevant respects they are virtually indistinguishable from those who attended the same universities direct from school. This suggests that the British Columbia CAT system plays an important part in creating a more equal society.

18. Despite this positive picture, in drawing lessons for the UK, a number of points need to be considered:

- i. As in California, articulation agreements are not general, but are course to course and college to university.
- ii. Again as in California, credit transfer is stalling. The proportion of four-year students represented by students transferring from college has reduced from 40 per cent to 30 per cent in the past decade. Many college students are unable to secure the transfer place that they expected - in 2002 more than 25 per cent of eligible students did not secure the place they sought. The credit system ensures that if a student is admitted to university then they will receive credit for their previous work. But it does not guarantee that they will be admitted. That is a separate issue.
- iii. Transfer of credits occurs very largely between college students and universities, with relatively little transfer between universities. Again, this suggests that credit transfer is a rather specific phenomenon.

The United Kingdom

19. There is a long history of interest in credit accumulation and transfer in the United Kingdom, going back to the CNAA, the establishment of the Open University, and before that to the Robbins Committee.

20. More recently, there have been established a number of consortia, the ambition of all of which is to establish common frameworks and approaches, and ultimately increase the amount of credit transfer. For example they attempt to ensure that all members work within a common framework of levels, and that they agree about the proportion of general and specific credits needed at each level for the award of a particular qualification.

21. In Scotland the Scottish Credit and Qualifications Framework (SCQF) has recognized (as have the other consortia) that simply accounting for the time spent completing a module does not provide sufficient information to enable a student to be accepted onto another course in that, let alone another, university, and therefore that information is required about the levels at which the work was done and the standards achieved. That of course has been so in the past, and although a certain amount of transfer has always taken place⁴, universities have had to take decisions without systematic information. Simultaneously with the development of credits, therefore, SCQF has been developing a framework of 12 qualification levels. A student who wishes to transfer to another university may therefore tell that university not just about the volume of work they have done (the number of credits that they have acquired), but can also tell the university about the level of the modules pursued. What is still lacking is any way of satisfying a university about the standards of the exporting university or the ability of the student concerned.

22. For whatever reason, and despite committed and innovative work on the part of a large number of members of credit consortia, CATS have not taken hold here. In part, the infrastructure that exists in North America – a network of colleges which provide the first part of degree courses, and universities that expect to admit significant proportions of their students from such colleges to the upper years of a degree course - does not exist. In part, it may be because the three year degree does not lend itself to a model of an intermediate award (like the Foundation Degree) plus top up as easily as does a two plus two arrangement. In part, though, it is because every development in credit accumulation and transfer appears to reveal further complications, and the more complicated the process becomes the less widely accessible it is likely to be.

23. That is a shame. Lifelong learning and widening participation are important policy goals, and CATS clearly has its part to play in furthering these.

⁴ See paragraph 7 above.

Europe

24. In pursuit of the ambition for greater mobility of students in Europe, the Bologna process envisages adoption of the European Credit Transfer System (ECTS) by all European universities. At one level this is relatively modest, and simply requires universities to attach credits to courses in a consistent way. It provides a common and readily understood currency for this, and relies on negotiation between students and universities that have exchange agreements to interpret and exploit this information. However, those responsible have concluded that the widespread movement of students requires a Europe-wide CAT system that measures not only how long a student has studied, but the level at which they have studied and what they have studied, as well as providing comfort to other institutions about the quality and standards of the institution where they studied.

25. The ECTS is entirely input focused at present, in common with other CAT systems, and is a measure of time spent studying. This is difficult for the UK, where a Bachelors degree typically takes three years and a Masters one. A purely workload or time-based approach would raise questions whether our degrees are comparable with those being introduced elsewhere in the EU where five years will normally be required for a Masters degree (although this is not actually a requirement of the Bologna agreement). The UK has therefore argued that credit should be awarded in recognition of outcomes achieved, not against the amount of time served. This is increasingly accepted within the EU, where efforts are now in progress to combine an element of outcomes as well as time in the ECTS.

26. However, not only does this complicate the quest for a Europe-wide and usable credit system; it also sits uncomfortably alongside the credit systems already in existence in the UK, which typically describe credits as a recognition of time spent. The SCQF, for example, describe credits as an estimate of "the amount of time required by the 'average learner' to complete a module", and in Wales the credit unit is described as the learning outcomes achievable in ten notional learning hours.

27. Given that credits, almost universally, are a measure of time, these developments have two implications. First they require a description of outcomes for every degree course and module; and second, they imply that students here can achieve those outcomes more quickly than students elsewhere.

28. Both these implications are problematic. The meaningful measurement of outcomes in all but the most vocational subjects has eluded those who have made the attempt in the past. It is increasingly recognised that without common curricula meaningful outcomes will not be described, and in that case the development and description of useful learning outcomes is unlikely.

29. The second implication – that students in this country might achieve the same endpoint after four years that students in other countries take five years to achieve - while difficult presentationally, is entirely plausible. How much a student can achieve can be affected by the intensity of instruction, the number of contact hours, the number of assignments and the length of the academic year⁵; as well as by pedagogic approaches and innovations in the teaching process. Given the attention that has been paid to learning and teaching here in recent years, it is quite likely that students are achieving more than they once did. However, to demonstrate this will be difficult, though this is what will be required if English universities are to award more credits for each year of study than their counterparts elsewhere.

30. One complication is that the UK does not in fact claim that students in English universities can achieve the knowledge and competencies required for a Bachelors degree more quickly. The UK has accepted that Bachelors degrees elsewhere can be awarded after three years of study – the same as in England. The logic might point to the UK arguing that 3-years Bachelors degrees in other European countries equate to an English ordinary degree (citing the Scottish precedent) which would also justify a requirement for two more years of study for a Masters in those countries. Accordingly, although there is currently concern about our ability to maintain the 3+1 model for

⁵ In actual fact a Masters course in this country is typically of one calendar year's duration, which reduces the gap between the time taken for a Masters course here and the time take in many other countries.

Bachelors/Masters degrees, there is nothing in the Bologna agreement that prevents this, and we should be able to maintain our position in this regard.

31. There is one further reason why English students might achieve the same endpoint more quickly than students elsewhere. If students here entered their degree courses at a higher point, then they would have less far to travel to reach the same endpoint. That is the basis on which English universities award honours degrees after three years whereas Scottish universities take four. If it is true that students with A-levels achieve greater depth of knowledge across a smaller spectrum than their counterparts elsewhere, then that might also justify shorter higher education courses.

Issues with credit accumulation and transfer systems

32. Some issues are raised with regard to CAT systems that really ought not to be issues at all. As explained above, almost all courses are modular, whether explicitly or not, and it is essential for those who develop courses to stand back and look systematically at how these are organized. In as far as there is an issue with modularization it is actually about the extent to which degrees might be built up by discrete and unrelated courses, how small those elements that contribute to a degree might be, the rules for combining them to achieve a qualification, and what is examined and how.

33. Attaching credits to modules, again, is a question of systematically evaluating the relative effort required for the different components. The advantage of CAT systems is that they systematise and make transparent what may already occur but in a more or less random way. Even if a university claimed that the whole of its first year was indivisible and therefore should be regarded as a single module, it is still possible to attach to that "module" the number of credits appropriate to one third or one quarter of a three-year or four-year degree course.

34. As credit accumulation and transfer systems have developed in Europe, so has the feeling that realisation of or the European ambition for these requires an

overarching framework of course levels and common level descriptors. Logical this may be, but it has raised the stakes, increased the bureaucracy, and reduced the likelihood of success.

35. In neither California nor British Columbia are these further aspects of CATS even under consideration. That is in part because with smaller, more homogeneous, systems, more is left to trust, and universities generally have confidence that what is provided in the colleges is appropriate and of a quality equivalent to what they provide. In part also it is because the CAT systems in both California and British Columbia are more modest in their aspirations than those being developed in Europe.

36. In North America, by and large, systems have been developed to enable students to begin programmes at a college and complete them at a university. They have not been designed to allow transfer between universities (although they may, that is not how they have been designed). Agreements are specific, university to university, college to college and course to course. In contrast the ambition in Europe is to create generic, all embracing, systems. Consequently, because of the generality of the ambition, levels, level descriptors, and compatible quality assurance arrangements need to be developed, running the risk that the whole edifice will topple over because of its complication.

37. It needs also to be borne in mind that even if CAT systems and all the ancillary features are successfully developed and widely adopted, this still does not provide a "guarantee" of progression or transfer. It will always - as it is at present in British Columbia - be up to universities to decide whether or not to accept an individual student for entry. A common European credit framework will tell the receiving university how long a student has studied, and a common framework of levels and level descriptors will satisfy the university about the level of those credits. But the notion of "guaranteed" transfer remains a distant prospect.

38. One development in England that shows signs of moving us in the North American direction of specific articulation agreements is the proposal for Lifelong Learning Networks. For these to be successful, colleges and local universities would

need to come to specific agreements on a course by course basis about the curriculum offered in the college and which courses in the university that will provide access to.

Lessons

39. The first lesson that can be drawn from this review of CATS is that we should be modest in our aspirations. The requirement systematically to break down the components of a university course, and to describe the learning that each is intended to provide and the weight to be given to each component is simply a requirement to be rigorous and transparent. Similarly, to overlay a course with the ECTS credit framework ought to cause no difficulty anywhere. This would be a modest requirement, with no objectionable consequences, and would put us in good standing with our European partners.

40. The second lesson is that credit accumulation and transfer systems are most likely to be successful if they are simple. Given the ambition to achieve all embracing and comprehensive generic arrangements, there may be a certain logic to the development of credit levels and level descriptors, but these complications make it more likely that CATS will not play a major role in the development of higher education in Europe. And even if common systems are developed, universities will always need to make ad hominem decisions about the admission of individual students.

41. The British Columbia and California systems have not felt the need to develop level descriptors and a credit framework - there universities trust the colleges to make appropriate provision. Nor do they demand quality assurance systems to satisfy them that the colleges are competent to make the provision - again there is a degree of trust. In Europe - understandably because the system is so much larger, but also because more is demanded of CATS - trust is insufficient for this and more elaborate systems are being developed.

42. The North American experience demonstrates that CATS can help widen participation. However, that experience also shows that some of the other benefits

claimed for CATS may not be available - most particularly the widespread movement of students between universities and the accumulation of credits for lifelong learning.

43. Applying this lesson to the UK is problematic, since the North American infrastructure which permits the first two years of a degree course to be provided in a college, to be completed in a university, is not in place here, and it would take a massive upheaval for those conditions to be established - possibly with a redefinition of some universities as colleges and the building up of some colleges and the downsizing of some universities. However, even without such a revolution here, there are aspects of CATS which we would do well to adopt, and it would only take imagination and will to do so.

44. The way forward is more likely to lie in agreements (which will have to be at course and curriculum level), between compatible, like-minded and often neighbouring institutions, than in general systems that are unlikely to be effective in practice. The Lifelong Learning Networks show signs of having learned the lessons of North American CAT systems, and by focusing on one to one relations and articulation agreements that provide a reasonable prospect of progression, they are more likely to prove successful than other more ambitious and far reaching approaches.

45. In terms of the Bologna process, adoption of a common European CAT system will help universities to assess how much work a student has done; and the Diploma Supplement and Transcript of Record will help students show what they have achieved, and universities to assess this. That much is helpful and indeed is probably necessary, and there is no reason for any university not to adopt these measures. Indeed, it would be failing in its obligation to its students if it failed to furnish the credentials necessary to help them achieve mobility.

46. The further developments of common levels and level descriptors, and a common European quality assurance process, may be logical, given the aim of achieving mobility of students, but they are only necessary because of the – perhaps justified - absence of trust. These complications may yet undermine the early and widespread

use of the European Credit Transfer System for student transfer, even if an increasing number of universities attach ECTS points to their courses.