TOTAL TEACHING: AN EXPERIMENT IN POST-SECONDARY ART AND DESIGN

Nicholas Houghton
University of London

Abstract

Total teaching is a way of delivering art and design at the post-secondary level. It involves a team of teachers delivering an integrated, post-formalist curriculum through project work and action learning. Students are able to learn at their own speed and all members of staff take responsibility for all aspects of delivery of the programme. This paper describes how this was introduced in a college in London, England and reflects on whether other factors might have contributed to its success.

Key words

post-secondary art & design, integrated curriculum, team teaching, action learning.

Introduction

This paper presents a personal account of the introduction of total teaching

into a post-secondary art and design department in London, England. Total teaching is the name I gave to an innovative way of teaching art and design. It began to form in my mind after attending two, well-reputed English art schools. The studio teaching was delivered by, what was by then, an almost defunct apprentice system and not only was nothing being put its place, neither did the staff appear to think there was any need to. It seemed to be presumed that students would glean some wisdom from their teachers by a form of osmosis. Instead, students learned from each other and from reading magazines but very little from their teachers. The theoretical parts of the programme were delivered through old-fashioned lectures, which took place far away, in another building and were delivered by remote teachers. Many students didn't bother to attend.

When I studied education as part of my Masters degree, I was provided with theories with which to understand and criticise the education I had received. I was able to describe a number of shortcomings in the teaching in this sector, in particular: poor presentation and delivery, lack of coherence of a programme, lack of discussion by staff of how to improve their teaching, no pedagogic innovations. Scholars have often identified these same weaknesses in the teaching in this sector (Pennington, 1994). Total teaching was an experimental attempt to rectify these faults.

Components of total teaching

Total teaching involves a team of teachers sharing responsibility for all aspects of the delivery of a programme, while students take responsibility for their learning and learn at their own speed. It is predicated on the need to integrate a post-formalist curriculum, introduce team teaching and teach through action learning and project work. Although not one of these components of total teaching is new, the way in which they are combined probably is.

Integration of the curriculum. When delivered, post-secondary art and design programmes have traditionally been split up into subject elements, which are timetabled and taught on their own, for example: life drawing, art and design history and theory, art and design studio etc. Often this separation is made more apparent by teaching different subject elements in differ-

ent locations. In this way, the programme is an amalgamation of disparate elements which it is up to the learner to connect (Further Education Unit, 1985). However, students often tend to consider some parts of a programme irrelevant, while they are also frustrated when there is too much overlap, so that what is taught in one subject is repeated in another (Parson, 1999).

Team teaching. Some people prefer to teach on their own and, after all, art and design is an area that tends to encourage individuality. Nevertheless, there are countless advantages to working with others, provided there is a good relationship. I have yet to produce a proposal or document of any kind that wasn't improved when I showed it to colleagues. In the unlikely event that this was ever not the case, I would be immensely reassured to know that colleagues approved of what I intended to do. If all good teachers keep trying to improve, then this is made much easier by working closely with others. On our own we try to reflect on what we are doing right and what we are not. However, frank feedback from colleagues we respect makes this much easier. Working in a team has numerous practical advantages and it is easier to give our best where our colleagues are helping us and lending support (Hardingham & Royal, 1994; Bess, 2000).

Action learning. Although there can be room for different ways of delivering a curriculum, I believe that the best way for students to learn is to find out by doing. There is less passive learning in art and design than in many other subjects, although elements such as history and theory tend to be taught by lectures (Danvers, 2003). All the same, it is important to emphasise that action learning does not imply giving students time and space to develop and express themselves. It entails students taking responsibility for their own learning, identifying for themselves what they need to learn and reflecting on what they have done, rather than depending on a teacher to tell them (Lonka & Ahola, 1995; Moon, 1999).

Project work. Teaching through project work has become common in various subjects in English secondary schools and in art and design in English post-secondary institutions. In the latter case, projects will follow a set design process. This begins with a brief that sets out what has to be done and also often specifies deadlines. Following this is the research stage, which can include theoretical, image and market research. Next comes idea generation,

when students are expected to produce a series of ideas that might allow them to meet the requirements of the brief. After this, comes development, when each idea is developed as far as possible. Although this can mean improving the idea and refining it, it can also entail unleashing lashings of creativity, when as many avenues as possible are explored, even those that might seem almost ludicrous. After this a decision has to be made about which idea to use and this has to be refined into a final solution. Finally this final solution has to be presented in a professional and striking way (Wise, 1990). It is pertinent that this design process has dominated English post-secondary education for over twenty years. This has contributed to artists, as well as designers, doing work that is more concerned with ideas than with the properties of materials and how to manipulate them.

Post-formalism. For fifty years art and design education has concentrated on formalism. This is rather like cooks falling in love with the ingredients of a dish and their properties. And it is true that many of these ingredients are delicious and appealing. Nevertheless, this approach can only lead to a series of dead-ends. The alternative that I believe in begins with what the work is about and encourages an engagement with issues beyond the narrow focus of art and design itself. In this way, the learning about the materials and techniques comes from these issues in the sense that it is the best vehicle for presenting their meaning, rather than the self-referential formalist approach of beginning with the issue of materials and techniques (Efland, Freedman & Stuhr, 1996; Freedman, 2000).

Introduction of total teaching

The experiment took place in a small art and design department in a large post-secondary college situated in inner-London, England. There were about 150 students and 12 staff, most of the latter being part-time. The programmes on offer were one- and two-year general art and design programmes, including an access programme that was specifically designed for adult learners, together with a two-year programme in interior design (interior architecture). During the six years I worked there, cuts in government grants caused the number of taught hours for a full-time programme to be gradually reduced from 28 to 18. Although students came from all over London, they

tended to be from disadvantaged backgrounds and with records of low achievement at school. Despite the study not being compulsory, many students had low self-esteem and displayed hostility to learning in general and to teachers in particular. About half of them had completed compulsory schooling and were aged about 17, the other half were adults who were returning to education. On completing a programme, most would aspire to continue to study at university, although some might wish to find employment.

When I began, staff morale was low and facilities very poor. The programmes were delivered in discrete parts, for example the interior design programme had subject elements such as technical drawing, construction theory, furniture design, modelling, observational drawing. Although there was a room where staff could meet informally, many who were part-time never did.

After my first year, I determined to try to introduce total teaching. My aim was to do this over five years, although, in the event, it only took three. The first thing I needed to do was assemble a team willing and able to do this. I therefore determined to appoint staff with several, specialist skills, one requirement being a first degree in one art and design specialism and a post-graduate degree in another. For example, I appointed a graphic designer who had also studied 3D design. Most of the staff I brought in were young and with little or no previous teaching experience. This was because in my experience they were more flexible and open to trying new ideas than more experienced teachers.

Having assembled a team, it was then necessary to hold regular, formal meetings and function as a team. At first we explored shared aims for the programmes and having identified these, discussed assessment criteria and procedures. These meetings culminated in a two-day, overall review of the programmes which addressed twelve factors, identified strengths and weaknesses and decided which changes we would introduce to improve each of them. By this time the team was already functioning effectively and changes were coming from the team, rather than being imposed. It is important to note that mutual trust and support had been established and there was no shame in not knowing something.

The next stage was to produce overall themes that could link work together and all staff devised work based on these. In this way, the curriculum of each programme began to come together. Themes could last for a week or a term. We found that it was better to have two different themes at the same time and that it was better not to choose obvious ones. For example, if the theme is flora and vegetation, do not set a textile design project, but use this for an industrial design project about designing fridges (which we did). Another consideration in choosing themes was student interests and the fact that students were from many ethnic backgrounds. However, themes also acted as a stimulus to staff, who, having chosen one, would enthusiastically research this topic for themselves. This also prompted staff to select more unusual themes.

The next, crucial stage entailed staff devising integrative projects within these themes. These projects cut across subject elements and were delivered by several staff. Discussion about this was very animated and enthusiastic beginning with brainstorming and then refining and developing a project. I can remember occasions when such meetings ended with staff leaving and saying how they wanted to start teaching this immediately, so excited were they at the prospect. As well as formal team meetings, staff would often spend hours discussing these issues over the telephone during evenings and weekends (email was still in its infancy then).

After two years integrative projects covered all elements of all programmes. The results were dramatic, as overall student achievement on all programmes changed from about 20% of those who enrolled to over 80%. Areas of the curriculum that students had previously resisted, they now embraced. For example, numeracy and literacy were compulsory elements, which had previously been taught by subject specialists from other departments in the college. However, we took it upon ourselves to deliver these and included them within project work. Students no longer resisted, when they were not identified as separate subjects and were able to understand the value of learning them.

At this stage all staff were responsible for delivering and assessing work of all students. This meant that any student could approach any staff member and be helped. And students were encouraged to do just that: to take

responsibility for their learning and approach a staff member when they needed assistance. Staff enjoyed the flexibility this gave them: they could at any stage swap with one another and be with a different group of students. It also meant that that while one staff member was available to two groups of students, two staff members could be working assessing, since our policy was that all summative assessment was carried out by two staff members, including entry interviews.

The team had also persuaded me to teach adult students together with school leavers. I had been reluctant to do this, being concerned that adults would not take kindly to being educated beside more unruly, young students. However, the team was right and this worked out extremely well, with both sets enjoying working together and behaviour of the younger students improving.

By the third year we were ready to introduce total teaching. For this, each student would work at her or his own speed in negotiating an integrative assignment, which the whole team took responsibility for devising, delivering and assessing. The first assignments were short, however as students progressed through the programme, so they became longer and more complex. At this stage I was able to free the whole department from the tyranny of timetables. In this context timetables would have been worse than unnecessary; they would have made it impossible to work in this way.

I had been apprehensive about this. After all, students have timetables right through their schooling. How would they react to determining their own timetable and taking responsibility for their learning? I need not have worried. Students adapted to this without difficulty and it all went smoothly.

It is important to note that formal procedures were in place to guide students in negotiating a project. The project briefs were quite detailed and clearly outlined the stages. Students had to monitor their own progress in their sketchbooks and on self-assessment forms. These were used for discussing progress with staff and during formative and summative assessment. Moreover, staff would always be proactive if they observed a student needed assistance and was not asking for it.

Although within the department total teaching was proving very successful, the senior management of the college, which had eyed this curriculum

experiment with a large degree of hostility, found the concept of no timetables one step too far. These senior managers liked to think of one group of students all together in a class with one staff member teaching them and the concept of several groups of students all over the department being taught by several people did not appeal to their bureaucratic minds! I believe the experiment was only allowed to continue as long as it did because of the outstanding results of the department, in which students won the national 'student of the year' award in two consecutive years. Nevertheless, corporate culture in an institution is very resistant to change (Stuhr, 2003). I found the pressures from senior management unrelenting and finally was forced to leave and the experiment ended.

Evaluation of the experiment

W ithin its own terms, this curriculum experiment was an undoubted success. Perhaps a hint of the high level of staff and student enthusiasm and motivation can be detected in the way I write about it. However, it has to be acknowledged that there were special circumstances.

One consideration is that I was very committed to this approach and invested a lot of time and energy trying to make it work. It is possible that one reason for its success was that I was putting so much into the job. Another is that I appointed the staff, who may then have felt a loyalty to me and been more ready to try out something different. It has to be admitted that a full-time member of staff who had been in the department for many years resisted the initiative and did not enjoy working as part of a team and his relations with the team became very fraught. This resolved itself when he chose to resign his position and leave, however it is a reminder that team working does not suit everyone and that it could be very difficult to implement with staff well entrenched in their ways.

Another objection might be that it is better for each subject element to be taught by the person with the greatest skills and knowledge in it. Moreover, to introduce total teaching I sought out 'renaissance people' who would be able to bring it about. Without these, the scope for introducing total teaching would be more limited.

Another possible difficulty is reconciling total teaching with a modular

delivery. We had students who were asked if they had done any art and design history and replied that they had not, because it had not been identified as such. It follows that it would be difficult, although not impossible to devise a way of awarding credits to the various subject elements of an integrative project.

Despite these cavils, I remain convinced that total teaching is effective and I do not think that the dramatic improvement in student achievement can only be attributed to other factors. I do not claim it is the best model, but I do believe it is one others can adapt to suit their own circumstances. And I am convinced that improvements still need to be made to the teaching of post-secondary art and design.

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完全教學：英國高中（職）校藝術與設計課程之實驗研究

尼克拉斯‧豪頓
英國倫敦大學

摘要

「統整教學」是高中（職）校藝術與設計課程的一種教學法，由整個教師團隊透過專案作業與行動學習，教授整合、後形式主義的課程。學生可以自行決定進度，而教學的所有層面，都由全體教師團隊共同負責。本文介紹這種教學法在英國倫敦一所高中（職）校的實施情形，並檢討課程的成功是否可能涉及其他因素。

關鍵詞

高中（職）， 藝術與設計， 統整課程， 協同教學， 行動學習

(註1)Post-secondary 英國高中（職）校是英國中學後繼續教育的機制，該機制係指英國學生完成小學和中學(Primary & Secondary Schools)的國民義務教育階段後，準備升大學或求職的繼續教育階級，通常為時1-2年。

前言

本文以英國倫敦一所高中(職)校的藝術與設計系為例，介紹該系實施完全教學的經驗。完全教學是我提出的說法，指的是藝術與設計課程中一種創新的教學法。我在英國唸過兩所相當知名的藝術學校，求學期間我對完全教學的概念開始成形。當時的創作課程幾乎已經淪為學徒制，運作不良，畫室一片凌亂，教師似乎也都不以為意。學校似乎認為學生只要跟在老師身邊耳濡目染，自然就能心領神會；實際上我們卻是彼此觀摩、自己看雜誌，學自教師的極其有限。課程的理論部分是用傳統的講課形式，教室遠在另一棟樓，教師更是冷漠，很多同學根本懶得去上課。

等到我唸碩士班修教育課程的時候，才接觸到足夠的教育理論，真正瞭解我過去所受的教育，加以分析批評，說得出其中的缺點，尤其是表達方式不良，課程缺乏一貫的體系，教師之間沒有互相討論如何改進教學，教法毫無創新。研究藝術教育的學者，也經常指出這些缺失 (Pennington, 1994)，而完全教學就是為解決這些問題的一個實驗。

完全教學的內容

完全教學需要一個教師團隊，共同為教學中所有的層面負責，同時學生也要為自己的學習負責，決定自己的學習進度。課程重點是要整合後形式主義的課程，採用協同教學，以及透過行動學習與方案計劃合作的教學。雖然這些內容都不是新創的，但整合的方式也許是。

課程統整　高中（職）的藝術與設計課程，在教學上一向按主題來區分，有一定的進度，且各自獨立，例如素描、藝術與設計史和理論、藝術與設計創作等等。這些區分之外，不同的主題又分成不同的地點、教室上課，於是各個主題更不連貫，只是拼湊在一起，必須靠學生自己去融會貫通 (Further Education Unit, 1985)。然而，學生往往又會發現課程中有些部分是不相干的，另外有些內容又有重疊，重複出現在不同的主題科目中 (Parson, 1999)。

協同教學　有些人習慣獨立教學，而藝術與設計畢竟是比較重視個人特色創意的領域。然而，與他人一起合作，也有無數的優點，前提是彼此要有良好的合作關係。我的任何教案或文件，只要拿給同事看過，都能改得更好，

從沒有一次例外。即使真的沒有什麼值得再改進的地方，我也能夠確定同事贊同我的東西，心裡也會更篤定。如果所有的好老師都願意精益求精，那麼密切合作勢必會進步得更快。我們是可以自己檢討哪裡做得好，哪裡做得不好，但是如果能有我們尊敬的同事給我們坦誠的建議，更能看清楚自己的優缺點。團隊合作在實務上有許許多多的好處，能有同事的協助和支持，我們也更能發揮最大的潛力 (Hardingham & Royal, 1994; Bess, 2000)。

行動學習 雖然一個課程可以有不同的教法，但我相信學生學習效果最大的還是透過實際動手做。藝術與設計相較於其他許多學科，被動學習已經比較少，不過藝術史和理論課程，還是以講課的形式最常見 (Danvers, 2003)。我要強調，行動學習不只是給學生時間和空間去自我發展和表達，更重要的是讓學生為自己的學習負起責任，自己決定要學什麼、學習的成果如何，而不是等著老師來告訴他 (Lonka & Ahola, 1995; Moon, 1999)。

方案計劃作業 透過方案計劃作業的教學，在英國中學的許多學科以及高中（職）的藝術與設計學校，現在已經非常普遍。大專藝術院校的方案計劃作業，都有一套設計流程，首先是簡介方案主題，通常也會指定明確的期限。其次是研究階段，可以包括理論、影像和市場研究。再接下來是提出構想，學生必須根據方案計劃主題的要求，提出一系列的構想。然後進入發展的階段，每一個構想都盡可能發揮，包括深入思考其細節、使之更周延完備，也可以天馬行空，探索各種可能或甚至不可能的管道。最後再決定一個可行的構想，進一步設計，做為最後的方案計劃題材，並完成專業水準的作品 (Wise, 1990)。有一點值得注意的是，這樣的設計流程，在英國大專教育中已經流行了廿年，對藝術家、設計人員都產生影響，他們最關切的是構想、概念，而非媒材的特性或呈現方式。

後形式主義 過去有半個世紀，藝術與設計教育一直專注於形式主義，這種情形就好像廚師只愛上一道菜的材料和特性；當然這些材料大多很美味、很吸引人，但這種做法只會走進許多死胡同。我認為可行的辦法是從作品著手，探討作品的主旨與意涵，鼓勵學生深入思考藝術與設計本身之外的議題。在這樣的方式中，有關媒材、技巧的學習，都是從議題出發，媒材或技巧的選擇，是基於如何最能有效呈現所要表達的意義，而不是像形式主義中，以媒材、技巧本身為主要的考量 (Efland, Freedman & Stuhr, 1996; Freedman, 2000)。

採行完全教學

我們的實驗是位於英國倫敦一所大型高中(職)校的藝術與設計系，這個系並不大，約有 150 名學生，12 名教師，而且大部分是兼任。系上開的課有 1 年及 2 年的一般藝術與設計課程，還有一個成人課程，以及 2 年的室內設計課程。我在這所學校待了 6 年，期間政府對學校的補助不斷縮減，導致正式課程的授課時數也逐漸從 28 小時減到 18 小時。我們的學生雖然是來自倫敦各地，但大多經濟條件較差，過去的在學成績也不理想。雖說這所專校並不是義務教育，但很多學生都缺乏自信，對上學相當排斥，對老師尤其敵視。其中大約一半完成了中小學的義務教育，年齡在 17 歲左右，另外一半則是重回學校的成人；畢業生大多會繼續升大學，不過有些也會希望就業。

我剛進學校的時候，老師的士氣很低落，設備也很欠缺。課程設計各自為政，例如室內設計課程的科目包括科技繪圖、建築理論、家具設計、模型製作、觀察素描等。雖然有教師休息室，可以讓老師非正式的碰面討論，但是很多兼任老師從來不參與。

進學校一年之後，我決定嘗試完全教學。我的目標是分為 5 年來進行，不過最後只花了 3 年。我的第一步就是要組成一個有意願也有能力的團隊，因此我決定依幾項具體的技巧，指派適當的老師，其中一個條件就是大學主修美術設計的一項專門領域，同時碩士以上學位為另一個美術專業領域。例如我找了一位平面設計師，他也修過 3D 立體設計。我找的老師大部分都很年輕，沒有什麼教學經驗，因為在我的經驗中，年輕老師會比資深老師更有彈性，樂於嘗試新的觀念。

找好教學團隊之後，就必須定期集會，建立團隊的運作機制。一開始我們討論了彼此對課程的目標，確定目標之後，再討論評量標準及程序。這些集會之後，最後舉行 2 天的課程研討會，針對十二項課程主題，探討其優缺點，再擬訂可行的改進辦法。到這個階段，整個團隊已經能夠有效運作，改變開始來自內部，而不是來自別人的要求。有一點非常重要，就是團隊已經建立了互信和支持，對於不懂的事情，也不會羞於承認。

下一個階段是擬訂全面的主題，各主題之間要互相連貫，再根據這些主題來設計課程。這樣一來，每個科目的課程就能開始連貫起來。各個主題進行一星期到一學期不等，我們發現每次同時進行兩個主題，效果比較好，而

且最好不要找太明顯的主題。例如一個主題是植物，就不要搭配布的設計專
案，可以找一個工業設計的專案，設計冰箱（我們就是這樣做的）。選擇主
題的時候，另一個考量是學生的興趣以及各自不同的種族背景。此外，主題
也可以激勵教師多做研究，激發他們多找一些不常見、有特色的主題。

接下來的關鍵階段，是要教師在這些主題當中，設計出整合的專案活
動。這些方案計劃應該涵蓋各個主題要素，而且多位老師都在課堂上介紹
過。這樣的討論非常熱烈，先從腦力激盪開始，慢慢討論出一個具體的方案
計劃活動。我還記得有許多次我們討論結束的時候，老師都說等不及立刻開
始，每個人都非常興奮。除了正式的團隊集會之外，老師在晚上、週末也常
常通電話，一討論就是幾個小時（當時電子郵件還不普遍）。

統整方案計劃活動進行了 2 年，所有課程的所有要素都涵蓋了，結果非
常明顯，學生所有學科的成就，從 20% 大幅進步為 80%，以前他們討厭的
領域，現在都非常喜歡，例如數學和語文是必修課，以前都是由校內其他科
系的科任老師來教，但是我們把這兩門課也加入方案計劃活動中，不把它當
做獨立的科目，於是學生不再排斥，也更能瞭解學語文和數學有什麼用。

在這個階段，所有的教師都有責任教授所有的學生，以及評量他們的作
品。也就是說，任何學生需要協助，可以去找任何一位教師，我們也鼓勵學
生這樣做，為自己的課業負起責任，需要協助的時候，必須主動去找教師。
教師也喜歡這樣的彈性，隨時可以跟其他教師交換班級，帶不同的活動。另
外，一位教師帶兩個班的時候，兩位教師就可以做評量，因為我們的政策是
所有的總結評量都要有兩位教師的意見，包括入學的口試。

教學團隊也說服我，讓成人班加入畢業班的課程。我本來很遲疑，擔心
成人班同學不願意跟十幾歲、比較吵鬧的學生一起上課。結果事實證明是我
多慮了，教學成果非常好，兩個年齡層都很滿意，年輕學生的秩序也改善
了。

到第三年，我們已經可以實施完全教學。每位學生依照自己的進度，決
定一項整合的作業，所有的老師都有責任協助其設計、完成和評量。一開始
的作業比較短，但是隨著學生對課程愈來愈熟悉之後，作業也逐漸加長，愈
來愈複雜。在這個階段，我取消了全系的固定課表，在這樣的課程中，固定
的課表不但不必要，反而會形成阻力。

當時決定這樣做，我也考慮了很久。畢竟，學生從開始受教育以來，一

直都有固定的課表；現在完全要他們自己決定作息、爲自己的課業負責，他們會有什麼樣的反應呢？結果，我的顧慮都是多餘的，學生完全適應新的作息模式，毫無困難。

不過，有一點要注意的，就是我們訂定了正式的程序，來引導學生的方案計畫。一開始的方案計劃說明非常詳盡，明確訂出各個階段的進度，學生必須在素描簿和自我評量表上，記錄自己的進展情形。這些記錄會用來與教師討論，以及正式、總結的評量。此外，如果發現任何學生需要協助卻沒有提出要求，教師也會主動詢問督導。

雖然完全教學在系上非常成功，但是校方高層對這項課程實驗一直相當不支持，而取消固定課表的做法，他們更是無法接受。他們一向習慣全班學生集中在一個教室，由一位老師授課，現在全系學生卻分散成幾個小組，由許多位老師同時上課，完全違反了他們官僚的觀念！我相信，我們的實驗竟然能夠持續那麼多年，是因爲全系的表現實在非常傑出，學生連續 2 年贏得「年度風雲學生」獎。然而，一個機構的文化，對改變一向是非常抗拒的(Stuhr，2003)，校方高層不斷給我壓力，最後逼得我不得不離開，實驗也就中斷了。

對實驗的評量

這個課程實驗，就本身來看毫無疑問是非常成功的，從我前面的敘述，也許就能感受到教師和學生對課程的支持和強烈的動機。然而，我必須承認，我們當時是有一些特殊的條件。

首先，我個人對這個教學法全心支持，投入了許多的時間和心力，讓課程能夠順利進行。實驗能夠成功，一個原因可能就在於我投注的心力。另一個原因是我自己找了教學團隊，這些老師可能對我比較有向心力，也願意配合各種新的嘗試。當時系上有一位資深的專任教師，對我們的課程實驗很排斥，也不願意加入教學團隊，跟整個團隊的關係變得很緊張；最後，這位教師決定辭職，離開了學校，問題才算解決。不過這件事也提醒我們，團隊合作不一定適合每一個人，對於已經非常資深的教師，要他們改變更是困難。

另外一個缺點也許是每一個學科主題，如果能由最擅長的一位教師來負責授課，效果也許最理想。此外，我找了一批「文藝復興」心態的人一起推行完全教學，如果沒有這些人共同的努力，我們的成果勢必要打折扣。

　　另一個可能的困難是如何在完全教學中結合各個課程「單元」的授課。例如有些學生我們問他們是否修過藝術與設計史，他們說沒有，因為課程中沒有標明哪個部分是「藝術與設計史」。還有一個相關的問題是，在這種統整的課程中，不同的學科主題如何計算學分，要設計出一套制度來也是比較困難的。

　　儘管有這些小缺失，我仍然相信完全教學是有效的教學法，我們學生長足的進步，我認為不可能只歸因於其他的因素。我並不是說完全教學是最理想的模式，但我相信其他人絕對可以配合各自的條件，調整採用；而高中（職）的藝術與設計教育，更有許多改進的空間。

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