

How To Do It

Devising a course for overseas visitors who don't speak English well

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Running a residential course requires thorough planning. This is particularly so when the delegates are from a country where the first language is not English. A group from the rheumatism research unit in Leeds recently ran such a course. The subject was biomechanics, particularly of the knee, and the audience was a group of orthopaedic surgeons from Japan who visited this country for 12 days. The need for such a course had been firmly identified, and it was seen as an opportunity to form links between us and the medical profession in Japan while raising funds for the unit. This paper describes the problems we identified, the strategies we adopted, and our successes (and failures) in presenting this particular course.

Aims of the course

Persuading a group of professionals to devote considerable time and money to a course requires that a definite need for the course has been established. In our case this was identified in a paper describing the state of biomechanical research in orthopaedics in Japan.¹ The paper was based on a questionnaire sent to medical schools in Japan with orthopaedic departments. One of the conclusions was that "the majority of (Japanese) orthopaedists involved in bioengineering research feel the lack of engineering knowledge and technique and have a desire to gain such knowledge." We decided that a short, intensive bioengineering course on a subject of mutual interest would be attractive to Japanese surgeons.

The aims of the course must be clearly identified, and all organisers must be aware of them. It is best to start with organisational aims—namely, why and how you intend to run the course—and work down to the specific educational aims. These should be written down and circulated for discussion. Some members of the team may well disagree with the aims. If this cannot be overcome by discussion they may decide not to contribute. This can be disappointing, but it is far better to find out at this stage than to produce, after days of preparation, material that is inconsistent.

The aims of the bioengineering course were split into two groups. The organisational aims were: to form links with the orthopaedic profession in Japan; to raise funds for the research unit; and to provide an attractive package comprising both technical education and recreation. The educational aims were: to ensure that the participants left with a working knowledge of the fundamentals of engineering mechanics and materials science on which orthopaedic biomechanics is based; to provide an insight into the way engineers in general, and bioengineers in particular, approach a problem; to provide a series of lectures on a particular topic of bioengineering to illustrate this; and to make the surgeons aware of the work in progress in the major centres of bioengineering in Great Britain.

Anticipated problems and preparation

When delegates commit themselves to the expense of time away from work and possibly a long overseas journey the organisers are under a heavy obligation to provide a professional service. Most of this is to do with attention to detail; clearly presented lectures, well maintained and tested equipment, comfortable lecture theatres, adequate meals and accommodation, and efficient transport. None of these are appreciably different from the problems encountered in organising any residential course. It is important, however, to try to predict problems specific to the particular course and audience, especially any problems related to language.

All the surgeons on our course could read and write English. Most, however, were not used to assimilating spoken English. Our previous experience with Japanese visitors to the unit had made us aware that the normal type of lecture presentation would not be adequate. The problems of communicating with an audience in a language other than their own were exacerbated in this case by the need for specialist terminology. Much of this—for example, the terms "stress" and "strain"—causes particular problems owing to the confusion of meaning between uses in the engineering and medical professions.

As far as the engineering course was concerned, it was not easy to predict how familiar the participants would be with the concepts of engineering mechanics. It was, therefore, difficult to decide at what level it would be appropriate to start this part of the course. It is our experience that mechanical concepts are really appreciated only when they are applied in solving problems. Without a grasp of these concepts the students would be unable to appreciate fully the specialist lectures in the course. We were concerned, however, about the reaction of a group of surgeons to an "examples class" approach, where they would be asked to make calculations and answer questions reinforcing the main points of the previous lecture.

Many of the group would be visiting Britain for the first time. Although they were anxious to make the most of their visit academically, it was clear that filling their available time with lectures alone would be counterproductive. Ideally they should be able to recover after their journey, be given time to accustom themselves to the language before facing serious academic tasks, and know that there would be adequate time for sightseeing and shopping.

Discussions about the aims and design of the package deal took place roughly one year before the event. From the start one of the organisers was a surgeon in Japan who looked at our ideas, discussed them with colleagues, and made suggestions about the design of the package. In doing this he also acted as our local advertising agent by bringing the course to the attention of possible delegates.

In consultation with our Japanese colleagues we decided that the right mixture of recreation and education would be achieved with a 14 day package deal. Air travel to and from Tokyo would occupy one day each way, which would allow 12 days in Britain. Most of the academic material would be presented as a three day intensive course. We decided that the best way of providing an appreciation of current bioengineering research was for the surgeons to go and visit various well known centres. The time before and after the course would, therefore, include visits to such centres, as well as providing time for recovery, acclimatisation to the new language, sightseeing, and shopping.

As the package began to take shape it became clear that we needed someone to take responsibility for the travel and accommodation. Consequently we appointed a secretary for the equivalent of one day a week for the four months before the event. She was taken on full time during the two week visit. As the Japanese party signed up for the trip they arranged for a tour guide who could speak English to liaise with us. This guide eventually travelled to Britain with the party and proved invaluable. In hindsight we would strongly recommend this arrangement of secretary and tour guide taking joint responsibility for the organisation of the trip, while a member of

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the visiting party should be available to advise with the academic aspects of the course.

The size of the party was finalised a month before the event. The detailed itinerary had to be decided on at this stage so that hotel bookings could be made taking advantage of discounts for large parties and early bookings (table). Hotels were booked close to the bioengineering centres and sightseeing areas that the party wished to visit. The university conference centre at Leeds was booked for the short period of the course. No special meals were requested by the delegates, so traditional English fare was provided throughout their stay. Our visitors did, however, make regular use of local Chinese restaurants.

Itinerary of fortnight's course on biomechanical engineering for Japanese orthopaedic surgeons

Day	Day of week	Time	Activity
1	Thursday		Air travel from Tokyo
2	Friday	0605	Arrive Heathrow from Hong Kong; breakfast at Strand Palace Hotel
3	Saturday	1100	Imperial College Bioengineering Centre
4	Sunday		At leisure in London; overnight stay at Strand Palace Hotel
5	Monday		Journey to Leeds via Cambridge; accommodation at university conference centre
6	Tuesday		Sightseeing in Yorkshire, Harrogate, Fountains Abbey, and Ripon
7	Wednesday		Three day course
8	Thursday		
9	Friday	1700	
10	Saturday		Conference dinner at Ripon
11	Sunday		Journey to Edinburgh via Alnwick, Bamburgh castle, and Lindisfarne
12	Monday		At leisure in Edinburgh
13	Tuesday	0900	Journey to Chester via Moffat and Windermere
		1530	Journey to Oxford via Stratford on Avon
14	Wednesday	0915	Nuffield Orthopaedic Engineering Centre, Oxford
			Depart for London overnight; stay at Excelsior Hotel, Heathrow
			Air travel to Tokyo

A luxury coach, which was available for the entire period of the package, was used for transport. Although there were periods when the coach was idle, it had many advantages over alternatives such as trains, hired cars, and local buses. It provided an economical and flexible door to door service and so allowed the maximum use of available time with little risk of losing people in transit. The tour guide was able to ensure that overall schedules were maintained while the visitors themselves had considerable control over what they did and saw within that schedule.

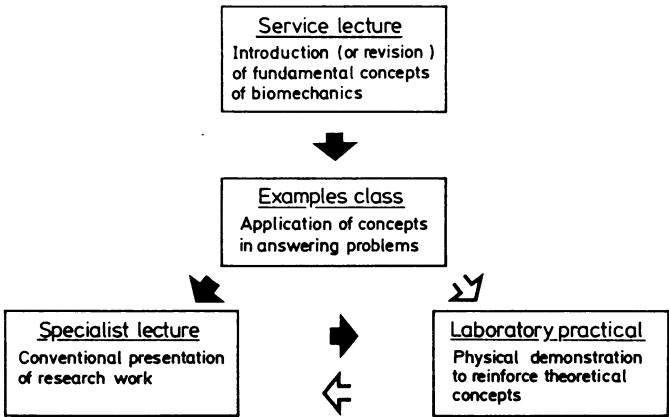
Course details

During the planning of the three day course of lectures it became apparent that the greatest problem of communication was that the students were unfamiliar with spoken English. To assess the magnitude of this problem we performed a full dress rehearsal of the course before the delegates arrived. All the lecturers and demonstrators on the course were present while each lecturer presented his lecture in full. Fortunately, two of the lecturers—an engineer researching into a related subject and an orthopaedic surgeon, both working in the university—were Japanese and thus able to offer helpful comments. Each lecture was evaluated on the basis of content, level of understanding required, structure, clarity of presentation, how the various aids were to be used (slides, models, and visual aids), and, most importantly, the language. All idiomatic phrases (well; I am afraid; it is all very well but, etc) had to be omitted. Complex phrases were made much simpler, and a consistent and limited vocabulary was adhered to. Jargon and technical terms were explained as they occurred, and emphasis was placed on diction. It is not easy for a foreigner to understand garbled pronunciation, especially when two or more words have the same sound but completely different meanings. The speed of delivery was also slowed down to that which our Japanese lecturers could follow. We found it helpful if one of the organisers sat at the back of the lecture room as a monitor. His function was to alert the speaker if he spoke too fast or too quietly. The dress rehearsal also enabled us to check the seating arrangements in the lecture theatre and the audiovisual equipment. We considered that uniformity of the seating arrangements was essential. Although this would appear to be an obvious aspect of organising any course, it is seldom paid enough attention. Often there are first and second class seats: an overhead projector may obscure vision, or its noisy cooling fan may reduce audibility. To avoid these problems each seat was

examined individually for clarity of sight and sound. Projectors were placed as far back as possible to reduce the noise (this of course would not be a problem in a purpose built auditorium with a back projection room).

In addition to the slow delivery we decided that a visual display of the key words of each lecture was required. To avoid loss of continuity of the theme of the lecture two slide projectors and screens were used. One screen carried the theme slides while the other carried the key words that were relevant to the slide. A booklet was provided that included the same list of key words so that the student could find the correct page at any time by comparing the listed key words with those on the screen. The booklet contained space for the student to take notes about each concept. Other audiovisual materials were used only when absolutely necessary—for instance, overhead projectors were used for graphs, and previously prepared diagrams and working models were used to provide tangible evidence of the concepts being discussed. Video tapes were also used to show points of interest and concepts that could not be readily shown in the lecture room.

The core of the course was a series of specialist lectures about bio-mechanical aspects of the human knee joint, its kinematic function, loading and force transmission, commonly occurring damage, and techniques of surgical repair and prosthetic replacement of the knee. To appreciate this material fully a working knowledge of the concepts of bioengineering was required. We also needed to ensure that the audience had a common level of understanding of these concepts. The specialist lectures on the knee were, therefore, interwoven with a series of “service lectures” that provided this theoretical background. The theory was made relevant by closely tailoring each service lecture to the needs of the following specialist lecture. Similarly, the topics of the specialist lectures were presented in such a sequence that the teaching of engineering concepts could be developed in a structured way. At crucial points in the development of the theory the lectures were supple-



Generalised strategy of lecture presentation showing how each specialist lecture was supported by extra lectures and preparation work.

mented with examples classes. These were designed both to give the students the opportunity to exercise the analytical tools they were being introduced to and to allow us to monitor the progress of the students to ensure that the lectures were being presented at the appropriate level. The figure shows the hierarchy of the various types of lectures used during the course.

Appraisal of the course

It is instructive and valuable to know for future reference how successful the course was through discussion with all those who participated. A good structure for this is to work through the original aims and assess how successful the course was in achieving each goal. It is also useful if each participant makes a written list of what they consider were the successes and failures. A questionnaire given to the audience before they leave may be helpful. If this is to be of value it must be well thought out and the time required to prepare it not underestimated.² It must be prepared in advance of the course and be ready for the audience immediately the course ends.

We drew several conclusions about our course from discussions with the delegates. The course was very favourably received. Many delegates admitted that they had had low expectations of how much they would be able to learn owing to the communication problem

but that they had been pleasantly surprised. The rehearsal of all the service lectures and most of the specialist lectures ensured the smooth running and continuity of the lecture course, the benefits of which were so apparent that we would recommend that this should form an important part of any lecture course. The use of key words on the second projector screen was certainly worth the extra effort required in the presentation. The examples classes were surprisingly successful in that the delegates enjoyed them and often completed them before the end of the session. This may have been helped by the intensely competitive temperament within this particular group. Others benefited from the one to one discussion that was possible because of the number of staff available during examples classes.

The prepared notebook was not as well used as had been hoped. It is easy to underestimate the skill required in taking lecture notes, especially when this problem is compounded by the use of a second language. The notebooks did, however, serve as a useful aide mémoire for the delegates to take home with them at the end of the course. Many of the delegates used cameras in the lecture theatre, and some even had miniature tape recorders. Perhaps this easily

available technology could be used to reduce the need for taking notes on future courses.

The excursions to sights of historical interest were much enjoyed, and the ratio of one academic to two recreational days proved to be an acceptable balance. The tour guide was useful as he was able to advise us about the major subjects of interest within the touring party, and this resulted in an impromptu trip to St Andrews golf course. In retrospect we could have tailored the recreation more closely to the interests of our party if we had contacted the tour guide before their arrival. We certainly underestimated the Japanese interest in golf!

References

- 1 Terayama K. The present state of biomechanical research in orthopaedics in Japan—an observation by an orthopaedic surgeon. *Eng Med* 1983;12:207-9.
- 2 Youngman MB. *Designing and analysing questionnaires*. Nottingham: University of Nottingham, 1978. (Rediguide 12.)

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Lesson of the Week

A difficult pain in the neck

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Dental disease is a recognised cause of pain in the neck but the underlying diagnosis is usually obvious because of associated symptoms related directly to the teeth. We describe a patient with a periapical dental abscess who presented only with pain and tenderness over his left carotid artery.

Case report

A 37 year old police officer with no history of neck trauma was admitted at his general practitioner's request complaining of excruciating pain in his neck. The pain occurred suddenly while he was washing his face. It started deep to the clavicular insertion of his left sternomastoid muscle, radiating both up the neck and to the left shoulder. It gradually resolved after a few minutes leaving a residual ache, only to recur suddenly with an associated tearing sensation deep to the body of the sternomastoid. Further exacerbations over the next two days compelled him to seek medical attention.

When admitted he was crying with severe pain and required intravenous diamorphine. The only physical finding was exquisite tenderness along the anterior border of the sternomastoid muscle. He was not feverish and his ears, nose, teeth, and throat were normal (although he was not examined by a dentist at the time). There was no facial swelling and all peripheral pulses were present with no bruits. Full blood count and autoantibody screen were normal, plasma viscosity was 1.89 mPa s (1.89 cP) (normal 1.50-1.72), and

Dental disease should be considered in any patient with unexplained neck pain; periapical radiographs will often aid diagnosis

biochemical profile showed only raised γ -glutamyltransferase activity (120 IU/l; normal 0-50). An x ray picture of the cervical spine was normal and real time ultrasound scanning of his neck showed a left common carotid artery of normal diameter.

The pain initially persisted in hospital, requiring large doses of oral analgesics. Three days later an abscess underlying the first left molar spontaneously discharged into the patient's mouth and the pain resolved within minutes. A dental surgeon subsequently extracted the tooth under local anaesthetic and the patient was discharged the next day. He remained perfectly well at outpatient follow up and his general practitioner verified that he had not been readmitted to any other hospital requesting analgesia.

Discussion

Inflammation of the membrane surrounding the root of a tooth (periodontitis) and subsequent suppuration (periapical abscess) are well recognised complications of dental caries.¹ The diagnosis of a periapical abscess is based on symptoms such as pain and swelling and signs of tooth tenderness and gingival or facial swelling.² Periapical radiographs often show bone resorption, although they may be normal during the first week.³

Infection of soft tissues in the head and neck may complicate

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