

Immediate Life Support (ILS) Training; Impact in a primary care setting?

Full report for funding authority, Plymouth Teaching Primary Care Trust and for the Resuscitation Council (UK)

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Executive Summary

This report describes a pre post quasi-experimental and qualitative evaluation of Immediate Life Support (ILS) training in a primary care setting across Devon and Cornwall. The evaluation took place over a 12 month period, starting in October 2004. The ILS course is a one-day, multidisciplinary course aimed at equipping first responders with the skills of basic life support, airway management and advisory defibrillation to manage a cardiac arrest prior to the arrival of experienced medical personnel. The course was evaluated on four levels (reactive, learning, performance and impact) in accordance with Kirkpatrick's and Clarke's models of evaluation (Kirkpatrick, 1967; Clark, 1995).

173 course participants from ten different courses took part in the evaluation. The group comprised of 137 nurses, 19 doctors and 17 other professionals. The overall response rate to the study was 93%. Questionnaires were administered to participants to obtain their feedback on the course, which was overwhelmingly positive. Participants appreciated the relaxed learning environment and left the training with increased confidence to manage a cardiac arrest situation; whilst the course was delivered equally well at all course locations and for all professions. Skills and knowledge were assessed before the course and at the end of the course. A significant improvement in both skills ($p < 0.001$) and knowledge ($p < 0.001$) was shown. However, a proportion of participants had a decline in knowledge by the end of the course which may indicate different learning style requirements or levels of fatigue.

The multiple choice test used to quantify knowledge was also administered to 44 non ILS attendees at the start of a standard in-house Basic Life Support (BLS) course and compared to knowledge scores at the start of the ILS course. Those attending ILS had a significantly higher knowledge score at the start of the course ($p = 0.002$) indicating that that student preparation for the course, in the form of an ILS manual, was beneficial.

Skills and knowledge were tested in a sub-group of 29 participants, 6 months after they had attended an ILS course. There was no significant difference in knowledge measured at the end of the course and 6 months later. However, skills were significantly poorer 6 months after the course than those measured at the end of the course ($p = 0.02$). Never the less, they remained significantly higher at 6 months than the pre-course skills levels ($p < 0.001$).

Skills and knowledge retention at 6 months were compared with a control group ($n = 25$) who had reported receiving BLS training 6 months prior to attending the ILS course. Results were compared from the pre-course knowledge and skills test scores of this group with those from the 29 ILS course participants who were retested at 6 months. Knowledge ($p = 0.008$) and skill ($p < 0.002$) retention following the ILS course was significantly higher than in the BLS sub group, indicating the added value of ILS in terms of skill and knowledge retention.

Focus groups were used to assess the impact of the ILS course. Separate focus groups were convened for ILS trainers, line managers of course participants and education coordinators. A thematic analysis of the focus

group transcripts led to the development of key themes under the headings of formative, summative and global moderators.

Formative themes indicated that student skills and knowledge varied at entry level, with consistent airway management errors. Respondents felt that attendance should be based upon department requirements and priorities and reported the benefits of a primary care focussed multi-professional approach from a focussed faculty delivering a largely relevant curriculum. However, training staff felt that there was a significant administrative burden relating to the recruitment of trainers and students and running of the course.

Summative themes indicated enhancement in competence, confidence, communication, leadership and global understanding in the clinical setting. But there were significant concerns regarding assessment and competency issues relating to the differing assessment judgements, 'hawks and doves', and a 'failure to fail' approach which it was felt would have a quality assurance impact, with potentially unsafe practitioners in practice.

Global moderators reported by respondents included concerns over future funding and a drive for income generation, difficulties in releasing staff to attend the course and a plethora of statutory and essential training and an unclear view of update requirements, processes and standards.

Conclusions and recommendations

- The primary care based ILS course is well run with participants leaving the programme with increased confidence and competence and feeling more able to deal with a cardiac arrest situation in the workplace.
- Overall the ILS course leads to a significant increase in skills and knowledge gain and retention. It has added value over in-house BLS courses due to better preparation (in the form of a course manual), and produces greater knowledge and skill retention.
- Some participants do not have an increase in knowledge which may be related to fatigue or learning styles. The Resuscitation Council (UK) and Faculties should consider offering the course over two days where applicable.
- Requirements for ILS need to be considered by individual departments with appropriate allocation of staff. Students should be encouraged to be fully conversant with the manual prior to attendance.
- The multi-professional approach with a primary care focus should be retained.
- Consideration of the administrative burden of the course must be acknowledged and supported appropriately.
- The core curriculum should remain unchanged as there is a reported impact on clinical performance.
- Assessment approaches need reviewing by individual faculties to ensure consistency in judgement.

- The assessment philosophy and guidance need to be made explicit by the Resuscitation Council (UK) clarifying the nature of the course, attendance only or pass/fail.
- Updates are essential and should be considered in-house at regular quarterly intervals. Consideration could be given to combining ILS refresher training with ALERT refresher training in a one day annual package.
- ILS steering groups should raise awareness of the ILS course at an appropriate level within the organisation to ensure that its usefulness is recognised and fully exploited.
- Funding needs to be addressed in relation to a focussed 'most need to know' basis and should be consistently allocated by health authorities.

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Immediate Life Support (ILS) Training; Impact in a primary care setting?

1 Introduction

The ILS course is a one day adult basic life support course which aims to equip participants with the essential skills for a first responder, including airway management, basic life support (BLS) and advisory defibrillation.

WDC funding was obtained by the Devon and Cornwall Primary Care Resuscitation Initiative (a collaboration of nine PCTs in the region) to run the course in four PCTs (Plymouth Teaching, Teignbridge, North Devon and North & East Cornwall) with a formal evaluation. An ILS steering group was established to plan and co-ordinate the running of these courses.

Apart from participant course appraisal forms the course has not hitherto been formally evaluated for use in the primary care setting. Within the Chartered Institute of Professional Development, there is a debate as to the value of this form of evaluation when used in isolation (www.cipd.co.uk/communities).

The evaluation presented here is a pre post quasi-experimental and qualitative evaluation based on Kirkpatrick's (1967) and Clark's (1995) models, which are long established and widely accepted as the standard model for training evaluation. Kirkpatrick's hierarchy focuses on satisfaction, knowledge and skill gain, workplace and society impact. Clark's model is based on four levels of evaluation, reaction, learning, performance and impact. Thus, in addition to reviewing participant feedback sheets, this evaluation has focused on skills and knowledge gain and retention and stakeholder views of the implementation of the ILS course in a primary care health setting.

2 Background

Survival from cardiac arrest is generally low. Recent figures from Cooper & Evans (2003) based on an in-hospital study of survival rates indicate that survival for 1 hour following resuscitation is 41%, 28% at 24 hours and only 19% of patients who arrest in hospital survive to go home.

These figures are much lower in the community setting. Unpublished figures from Westcountry Ambulance Service NHS Trust (WAST) indicate that less than 1% of patients who arrest in the community survive to the door of an Accident and Emergency Unit (data obtained from WAST audit department 2002-2003).

A body of evidence, (Gwinnutt, et al 1997,; Larsen et al, 1993; Wik et al, 1994) suggests that the main predictors of survival are time to the start of basic life support (if resuscitation is not started within minutes there is very little chance of survival), good quality basic life support, and time to defibrillation (the earlier patients are shocked, where appropriate, the greater the chance of survival).

The aim of the ILS course is to teach 'first responders' the essential knowledge and skills required to manage a patient in cardiac arrest prior to the arrival of a cardiac arrest team (Soar et al, 2003).

The ILS course is licensed and managed by the Resuscitation Council (UK) with certification valid for 12 months. Recertification can be achieved by repeating the whole course or by undertaking a half-day recertification course.

The ILS training programme is set by the Council. The courses are run exclusively at accredited centres. The centres are monitored by the Council as part of their quality control strategy but course directors have more autonomy than in courses such as Advanced Life Support (ALS) and are able to tailor the course to meet the specific demands of the participants. This ability to tailor the course is important as the 'first responder' may come from a variety of medical and non-medical backgrounds such as the fire service and lifeguards

The Resuscitation Council (UK) BLS/AED Subcommittee has defined a first responder as *"a person, trained as a minimum in basic life support and the use of a defibrillator, who attends a potentially life-threatening emergency. This response may be by the statutory ambulance service or complementary to it"*.

Thus the first responder represents a diverse group with differing training needs. ILCOR (2001) recognised the differences in training needs between laypersons with a duty to respond and healthcare professionals and produced an advisory statement on the topic. The advice is reflected, to some extent, in the content and design of the ILS course. Although, ultimately how well the ILS course meets the needs of this diverse group is dependent on how well the course is tailored to the needs of individual attendees.

The one-day, multi-disciplinary course comprises lectures, skill stations and cardiac arrest scenarios (CAS). In addition, candidates are provided with course manuals 2-weeks prior to the course to develop core knowledge.

There are three lectures, focusing on key points in the manual:

- Recognising the sick patient and preventing cardiac arrest,
- Introduction to cardiac arrest rhythms (how to monitor rhythms and recognise ventricular fibrillation (VF), asystole and pulseless electrical activity (PEA)).
- The universal algorithm (draws together everything learnt in the morning and prepares candidates for the CAS sessions in the afternoon).

There are four skill stations:

- Principles of BLS (standard layperson BLS followed by adaptations relevant to the candidate's workplace)
- Airways (including manual airway opening manoeuvres, use of simple adjuncts and ventilation using a pocket mask and two-person bag-valve mask). Teaching the use of the laryngeal mask airway or Combitube is optional.
- Defibrillation (emphasises the role of the first responder in providing rapid, safe defibrillation with AED and/or manual defibrillators to improve the outcome from cardiac arrest)
- Drugs and delivery (an optional skill station, aimed particularly at senior medical students and newly qualified doctors)

A continuous assessment process is used during the course. Candidates are provided with the assessment sheets with their manuals. The assessment sheets provide instructors with a framework with which to identify weaker candidates who may need further tuition. At 0.92%, the national failure rate for the course is extremely low (Soar et al, 2003).

To ensure a high standard of teaching, at least 50% of instructors have to be current ALS instructors, with a minimum instructor/ candidate ratio of 1:6. Although it is not considered ideal, ALS providers can teach on the course but they must be supervised by full instructors and cannot act as assessors.

The Resuscitation Council (UK) BLS/AED Subcommittee has recently published a document defining competencies in adult CPR and the use of an AED, which acts as a framework for assessment (Resuscitation Council (UK), December 2005). The document includes questions on knowledge and skills performance criteria. It does not, however, detail any means for assessment scoring or give guidance on how to assess 'out of sequence' actions. This is in contrast to the much more detailed guidelines developed in Cardiff, Wales (Chamberlain et al, 2003) which breaks down the complex psychomotor skills involved in CPR and AED into discrete components that can be evaluated and scored.

Assessment has been raised in relation to skills retention for example in response to the published reports of poor CPR skills retention, Kaye et al, (1991), investigated assessment during a CPR training course. They found that instructors consistently rated the students' overall performance as acceptable; at the same time, using the same checklist, they consistently rated the performance as unacceptable; they concluded the checklist was an inaccurate tool for evaluating CPR performance.

Studies of skills and knowledge retention in relation to CPR are well documented in the literature, a full review of this area is beyond the scope of this report, but the interested reader is referred to Hamilton (2005) for a comprehensive and up to date review. In summary, there is a difference in the rate of skills and knowledge decline, with better retention of knowledge than skills. According to Hamilton (2005), multi-disciplinary research shows a decline in skills and knowledge from 3-6 months following lecture-style training. Strategies that improve performance and retention of CPR skills and

knowledge include video self-instruction, peer tuition and computer-based teaching tools. Training should include simulations of in-hospital cardiac arrest scenarios appropriate to the trainee's clinical areas, and formal assessment should be carried out to ensure that skills are attained. Remedial training should be provided as often as required and at least every 3-6 months.

3 Methods of Evaluation

This study is based upon a pre post quasi experimental and qualitative approach using Clark's (1995) evaluation model shown in Figure 1. It consists of four levels of evaluation. Levels 1 and 2 (reactive and learning) are formative evaluations. Formative evaluation provides a method of judging the worth of the training programme while the activities are forming (in progress). This part of the evaluation includes a summary of information from participants' feedback sheets and focuses on skills and knowledge levels before and after the course.

Levels 3 and 4 (performance and impact) are summative evaluations. Summative evaluation provides a method of judging the worth of the training at the end of the programme. The focus is on the outcome.

Level 1 is termed "Reaction". This level measures the participant's perception of the course. It is not indicative of the ILS training programme's performance potential as it does not measure what skills or knowledge the participants have gained or how well the new skills and knowledge will be used in the work environment. None the less, it is important because it provides trainers with immediate feedback on the courses they run. The interest, attention and motivation of the participants are critical to the success of the training programme. In this study this level of evaluation was conducted by administering a questionnaire to participants at the end of each course. A copy of which can be found in Appendix A.

Level 2 of the evaluation is termed "Learning". It measures the extent to which participants improve knowledge and increase skill as a result of attending the training course. The methods of assessment used for the level 2 evaluation are described in the next section.

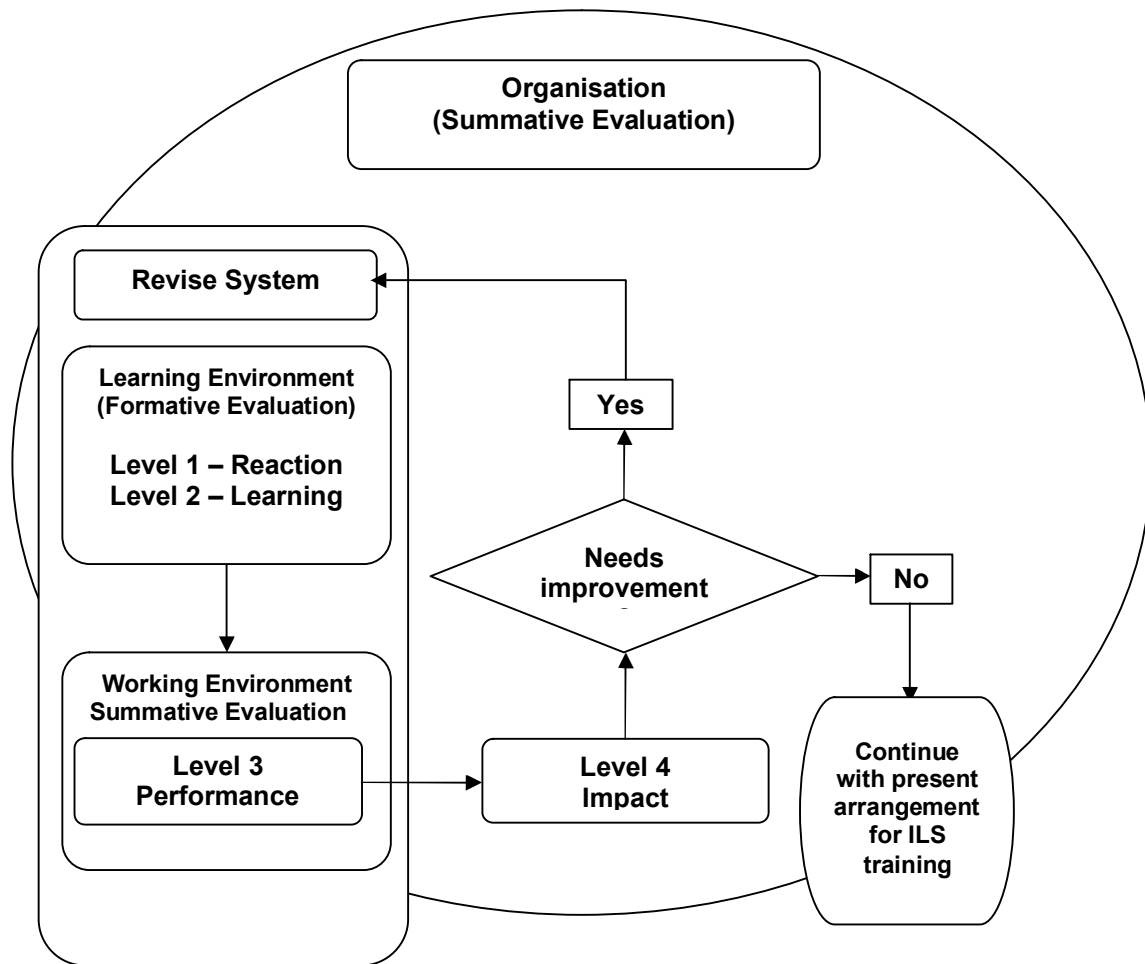


Figure 1 Model of Evaluation of ILS Training Programme (adapted from Clark, 1995).

Level 3 of the evaluation involved testing the participants' capabilities to perform learned skills in the workplace. It included feed-back from line-managers, based on their observations of staff that had attended the course and re-testing skills and knowledge on a randomly selected group of course participants after a fixed period from completion of the course.

Level 4 of the evaluation is termed "results". This level of the evaluation was achieved by conducting focus groups to ascertain the views of a number of stakeholder groups (line-managers, education co-ordinators and trainers). It places the ILS training course in the context of the organisation.

3.1 Methods of Assessment

All participants in the evaluation were tested for skills and knowledge at the start of the course and at the end of the course. A randomly selected sample was tested 6 months after attending the course.

Skill tests

A previously validated 'Skill Scenario' (Resuscitation Council (UK)) was used to measure skills at the beginning of the course and skills retained after a six month period (see Appendix B). Participants were tested on basic life support (BLS), airway management and defibrillation. Post course skills testing was based on the Resuscitation Council's Continuous Skills Assessment sheets which were integral to the ILS training programme and covered the same range of skills.

Knowledge tests

A 12 item multiple choice questionnaire was used to measure knowledge gained and retained (see Appendix C). The questionnaire had been tested and revised by a team of 5 Resuscitation officers over a period of 5 years. Each question stem was followed by four possible answers, one of which was correct and allocated one point with no negative marking.

3.2 Data Collection

Full NHS ethics approval was gained. Participants in the ILS courses were forewarned of the evaluation exercise in their joining instructions. At the start of each course a brief presentation was made to the participants about the evaluation and they were invited to participate. They were each given a written information sheet to retain and consent sheet to hand back to the evaluator.

Demographic and training information on participants was also gathered, along with the participant's individual course evaluation sheets. The demographic and training record sheet is shown in Appendix D.

Knowledge was assessed using a 12-question multiple choice test. Participants scored a point for each correct answer. No points were deducted for a wrong answer. The same test was administered at the start and at the end of the course.

Skills were assessed at the beginning of the course during a short practical test; a point was scored for each of the items demonstrated on the skills test sheet shown in Appendix B. Skills were assessed at the end of the course using the Continuous Skills Assessment sheets provided by the Resuscitation Council.

Data collection for levels 1 and 2 of the evaluation took place over a 7-month period between October 2004 and April 2005. Data were obtained from 173 course participants attending the courses shown in Table 1.

Table 1 Data collection summary, showing location, date and number of participants in the evaluation

<i>Course venue</i>	<i>Date</i>	Number of participants
Bodmin	01/12/04	16
	02/02/05	14 (<i>out of 17 course attendees</i>)
	20/04/05	16
Plymouth	11/11/04	19
	01/03/05	18
Tiverton	14/10/04	17
Barnstaple	23/03/05	22
Torbay	30/11/04	14 (<i>out of 21 course attendees</i>)
	25/01/05	18
	15/04/05	19 (<i>out of 22 course attendees</i>)

The multiple choice knowledge test was also administered to 44 non ILS attendees at the start of a standard in-house Basic Life Support (BLS) course and compared to knowledge scores at the start of the ILS course. This data was generated to investigate the effect of course preparation, including pre-course reading on knowledge test scores.

Further skills and knowledge data were collected on a randomly selected subset of 29 course participants, six months after they had attended the ILS training day, for the level 3 evaluation. The number of participants for this part of the study was determined by a statistical power calculation as described in the data analysis section. A pilot study was conducted to obtain data on within subject standard deviation measures of skills and knowledge retention to feed into the power calculation.

Skills and knowledge retention at 6 months were compared with a control group (n=25) who had reported receiving BLS training 6 months prior to attending the ILS course. Results were compared from the pre-course knowledge and skills test scores of this group with those from the 29 ILS course participants who were retested at 6 months. The objective was to make skill and knowledge retention comparisons between the two forms of training.

A database was established using SPSS version 11.5 software, which contains numerical and categorical data from each of the courses evaluated. Participants' course evaluation comments were collated separately.

3.3 Focus Group Methodology

The level 4 evaluation to assess the impact of the ILS course was conducted using a focus group methodology. Three separate focus groups were convened for different groups of stakeholders which were attended by trainers, line managers and education co-ordinators respectively. Demographic data for each of the focus group participants were recorded on pro-formas similar to those illustrated in Appendix D.

Each focus group was led by a moderator assisted by a co-moderator. Audio recordings were made of the focus group discussion for later transcription. Prior to the focus group, a topic guide was designed. This formed a guide for

discussion. The role of the moderator was to help the group explore the topics on the guide in a way that generated new insights and emphasised the participants' interests and concerns. The role of the co-moderator was to 'meet and greet' the focus group participants, to assist the moderator where necessary and to make notes on and audio recordings of the discussion.

On arrival at the focus group, each participant was given a written participant information sheet and a consent form. Refreshments were provided for the participants either before or after the focus group discussion.

The trainers' focus group was conducted on 26 May 05 at the Peninsular Medical School Building in Tamar Science Park. Six trainers took part in the focus group. The topic guide is shown in Appendix E.

The line-managers focus group was conducted on 16 June 05 at Newton Abbot Hospital. It was attended by four line-managers. The topic guide is shown in Appendix E. In addition to the line-managers focus group an individual semi-structured interview was conducted with a line-manager from a different region. An audio-recording was made of the interview; the focus group topic guide was used as the basis for prompts during the interview. The feedback from the interview was very similar to that obtained in the focus group, so no further individual interviews were carried out.

The education co-ordinators focus group was conducted on 30 June 05 at the Loop Centre, (South West Conferences Ltd.) in Exeter. Four education coordinators attended. The topic guide is shown in Appendix E.

The recordings from the focus groups were transcribed. A thematic analysis of the transcripts was conducted using the data driven procedure described by Boyatzis (1998). The data in each transcript were reduced to summary documents, from these, themes were identified. The themes were then compared across the focus groups. These themes were independently verified by a second analyst.

3.4 Data analysis

An initial analysis of the data was carried out, using SPSS version 11.5 software, after the first one hundred participants had taken part in the evaluation. This initial analysis was presented in an interim report.

Tests of normality showed that the knowledge and skills data were not normally distributed. Such tests do not reflect the magnitude of departure from normality. The knowledge data were negatively skewed but no consequential departures of normality were identified (i.e. skewness <2 and kurtosis <5). Accordingly, parametric statistical analysis was conducted on these data (Moss, 2002). The skills data, however, showed excessive kurtosis and therefore non-parametric analysis was conducted on these data.

Power calculations were conducted using SPSS Sample Power 2 software to determine the number of participants required to test for significant differences between skills and knowledge at the end of the course and 6-months after attending the course. The power calculations were based on within subject standard deviations obtained from a pilot study of nine course participants. The effect size considered to be of clinical importance was 16% for the

knowledge test (equivalent to a difference of two questions on the knowledge test) and 17% for the skills test (equivalent to a difference of three items on the skills test).

Numerical and graphical summaries of the data are presented. Descriptive statistics of demographic data are presented in terms of median, range, and quartile values or mean, standard deviation and 95% CI as appropriate.

A paired sample t-test was used to test for a significant difference between knowledge scores at the beginning and end of the ILS course. Repeated measures analyses of variance (ANOVA) procedures were used to test for any significant differences between course centres and candidates' professions.

Wilcoxon's signed ranks test and Kolmogorov-Smirnov 2 sample test were used to test for significant differences in skills scores before and after the ILS course.

A repeated measures analysis of variance was used to test for any significant differences between knowledge tested before the course, at the end of the course and 6-months after the course. Friedman's non-parametric equivalent test was used to test for any significant differences in the skills data.

An independent sample t-test was used to test for a significant difference in pre-course knowledge scores between the 44 BLS course participants and the ILS participants. The same test was also used to compare the 6 months knowledge retention data with a control group. The control group data was taken from the pre-course knowledge test scores of a sub-set of the ILS course participants who had reported receiving BLS training 6 months prior to attending the ILS course. These tests were designed to show if the ILS course represented 'added-value' in terms of knowledge retention.

4 Results

Data have been gathered from 173 course participants, drawn from ten training courses. The response rates were extremely high. They were 100% for all but three courses (Torbay; 30/11/04 and 15/04/05; Bodmin, 02/02/05). The overall response rate was 93%

4.1 Demographics and Previous Training

Demographic information was obtained from 173 participants. These included data on subjects' sex, age group, profession and specialisation, years of experience in health care, training obtained (BLS, airway management and defibrillation) and number of resuscitation attempts in the last 1- year and 5- year periods. The data obtained has been summarised by cross-tabulation against profession of participant.

The number of participants in the study is shown against their profession in Figure 1.

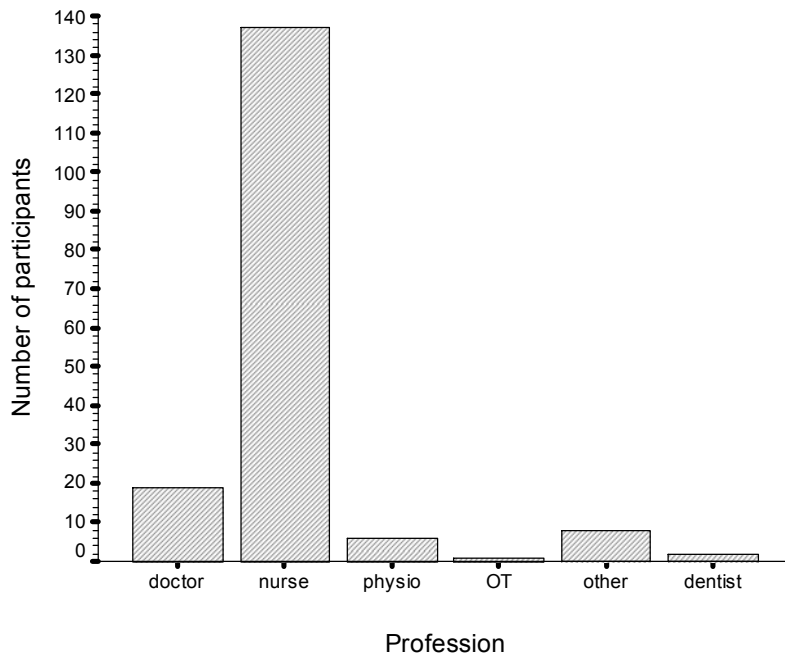


Figure 1 Number of participants in the study from each profession.

The study participants comprised 26 males and 147 females. The numbers of male and female participants are tabulated against their profession in Table 2.

Table 2 Number of male and female participants by profession

	Profession						Total
	doctor	nurse	physio	OT	dentist	other	
Male	9	10	0	0	2	5	26
Female	10	127	6	1	0	3	147
Total	19	137	6	1	2	8	173

Participants were categorised into five age groups; 21 – 30, 31 – 40, 41 – 50, 51 – 60, and 61 - 70. The distribution of subjects into different age groups as a function of profession can be seen in Figure 2.

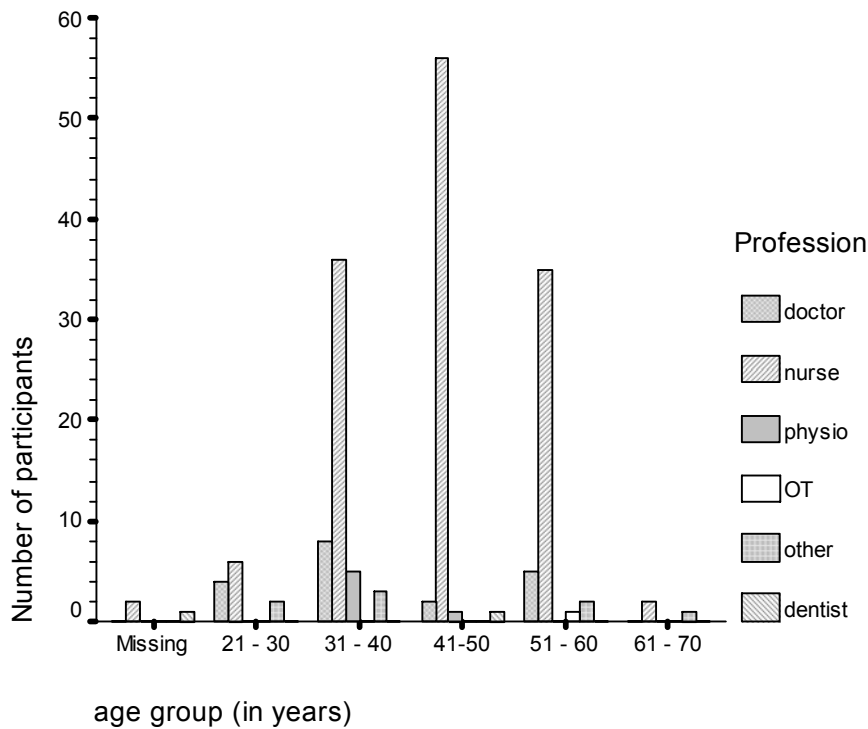


Figure 2 Distribution of subjects into age groups by profession

Study participants were asked to provide information on their years of experience in healthcare. Summary statistics of these data are presented in Table 3.

Table 3 Healthcare Experience (in years) as a function of profession

Profession	Mean	Median	Minimum	Maximum
Doctor	13	12	2	33
Nurse	21	20	0	43
Physiotherapist	10	9	2	18
Dentist	18	18	9	27
Other	7	1	0	28
All participants	20	20	0	43

Information was obtained on participants' previous training experience, in terms of the percentage of subjects having received training and the time elapsed since that training. Summary statistics (median, minimum, maximum and interquartile range) of these results are presented in Table 4.

The number of participants representing professions other than doctors and nurses were small; therefore, data from these groups were combined and are represented jointly as 'other participants'.

Table 4 Summary statistics for previous training in Basic Life Support (BLS), airway management and defibrillation

Type of training and professional group	Percentage of group received training	Summary statistic for time elapsed (in months) since training received for those trained			
		Median	Minimum	Maximum	Interquartile range
<u>Doctor</u>					
BLS	95	12	1	24	17
Airway management	68	22	6	120	33
Defibrillation	95	22	6	60	24
<u>Nurse</u>					
BLS	99	6	0	240	9
Airway management	88	7	0	108	14
Defibrillation	83	9	0	384	15
<u>Other participants</u>					
BLS	100	12	2	120	36.25
Airway management	35	7.5	0	12	10.5
Defibrillation	71	10.5	2	15	7.75

Participants were asked how many resuscitation attempts they had been involved in within the last 1-year and 5-year periods. The distributions of responses for all participants are shown in Figure 3a and Figure 3b respectively.

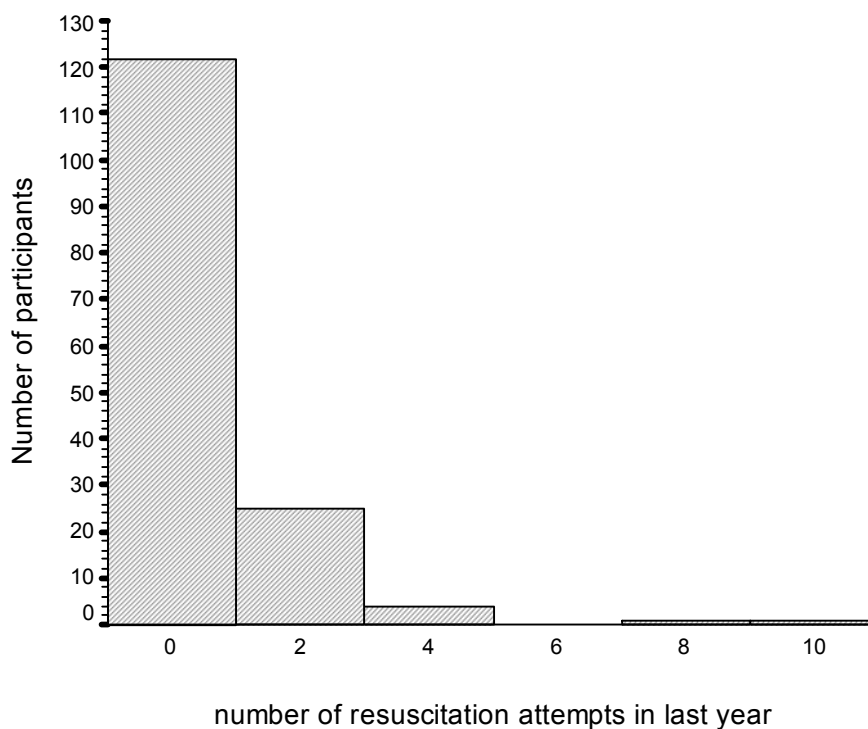


Figure 3a Distribution of resuscitation attempts in last 1-year period

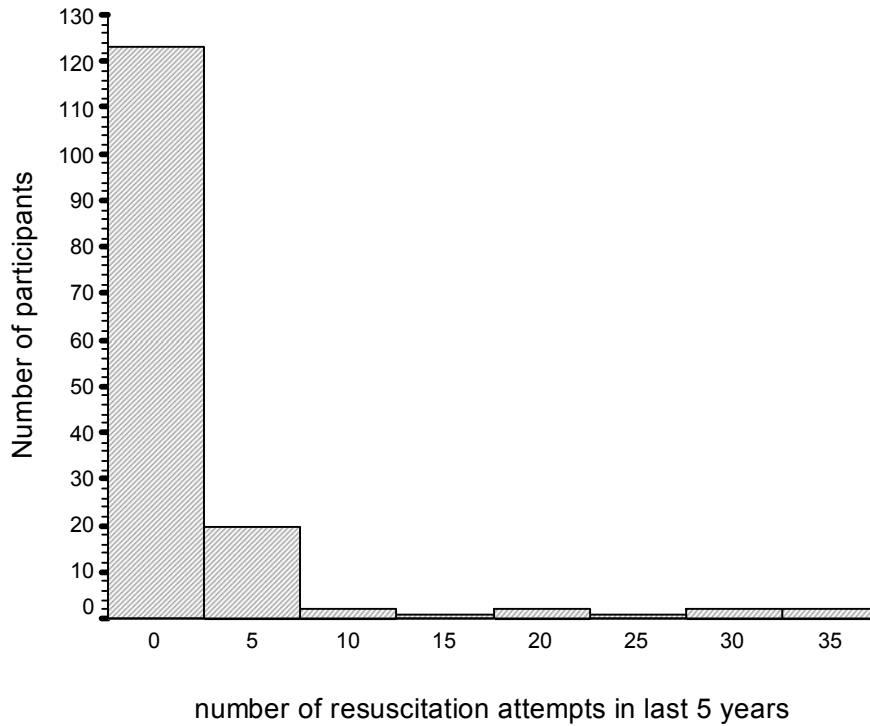


Figure 3b Distribution of resuscitation attempts in last 5-year period

Summary statistics (minimum, maximum, median and inter-quartile range) are presented for doctors, nurses and other participants in Table 5.

Table 5 Summary statistics for resuscitation attempts in 1-year and 5-year periods

Resuscitation attempts period	Professional group	Minimum	maximum	median	Interquartile range
1-year	Doctors	0	10	0	0
	Nurses	0	4	0	0
	Others	0	1	0	0
5 –year	Doctors	0	35	10.5	2.25
	Nurses	0	30	1	2
	Others	0	2	0.5	0

4.2 Pre and Post Course Knowledge Test Results

173 participants took the pre course knowledge test, of these, 167 took the post course knowledge test. The distributions of percentage scores for the knowledge tests are shown in Figures 4a and 4b.

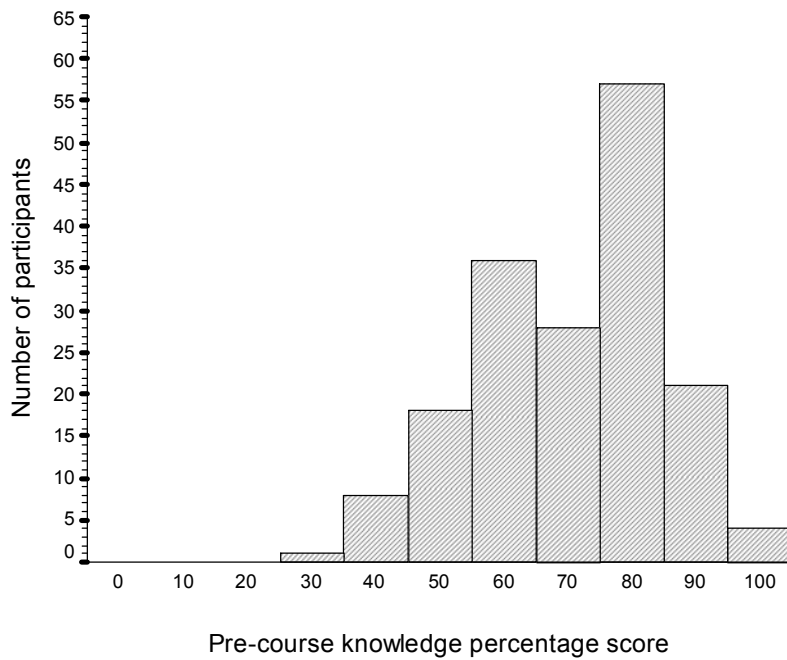


Figure 4a Distribution of pre course knowledge test percentage scores

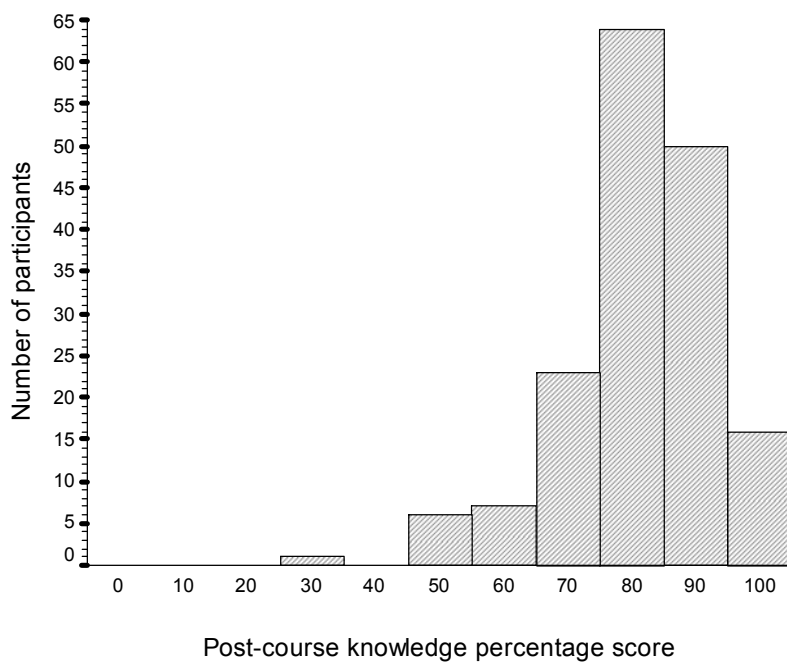


Figure 4b Distribution of post course knowledge test percentage scores

There was a significant difference between the pre- and post- course knowledge test percentage scores (paired sample t-test, $t=-10.56$, $p<0.001$).

The relationship between pre and post course knowledge test percentage scores is shown in Figure 5. There was a significant positive correlation between them. (Spearman's ρ (2-tailed), $p < 0.01$). However, 21 of the 173 participants (12%) had a poorer score at the end of the course than at the beginning and 30 of the participants' scores (17%) remained unchanged.

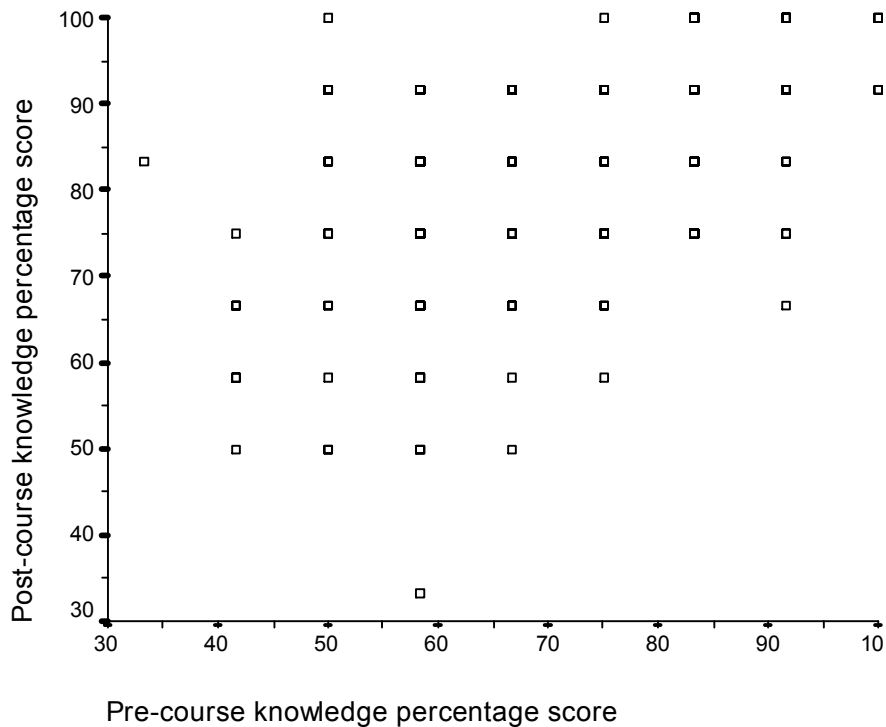


Figure 5 Relationship between pre- and post test knowledge scores

The MCQ test was also administered to 44 non ILS attendees at the start of a standard in-house BLS course. The distribution of their knowledge test scores are shown in Figure 4d.

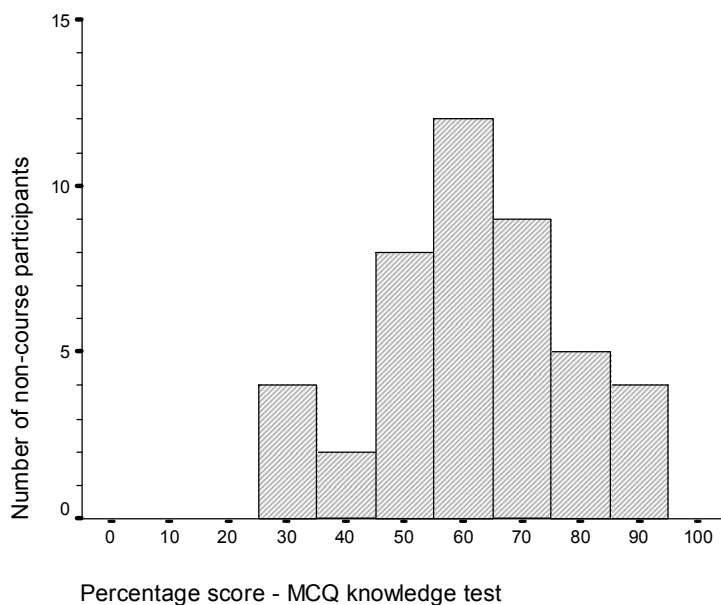


Figure 4d Distribution of MCQ test results (percentage score) for non-course participants

For ILS candidates the mean pre-course test score (69.7%) was significantly higher (Independent samples t-test, $t=3.28$, $p=0.002$) than for the BLS course candidates (whose mean test score was 60.6%). The difference may be attributable to knowledge gained from the pre-course manual.

A sub-set of 29 participants were tested for knowledge 6-months after completing the ILS course. The distribution of results from these tests is shown in Figure 4c and summary statistics for all knowledge test scores in Table 6.

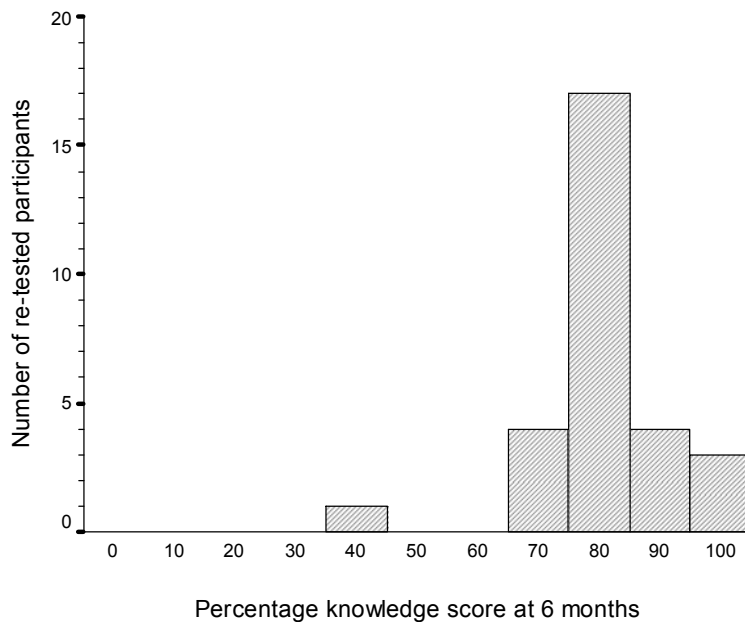


Figure 4c Distribution of percentage knowledge test scores 6 months after attending ILS course.

Table 6 Summary statistics for knowledge test scores

	Non ILS trained knowledge test % score	Pre-course knowledge test % score	Post-course knowledge test %score	6 months plus knowledge test %score
Number of participants	44	173	167	29
Mean	60.6	69.7	81.4	80.2
Std. Deviation	16.6	15.1	13.2	12.3
Skewness	0.05	-0.01	-0.82	-0.79
Kurtosis	0.05	-0.81	0.42	2.23
Minimum	25.0	33.0	33.0	42
Maximum	91.7	100.0	100.0	100
25 th Percentile	50.0	58.3	75.0	75
Median	58.3	66.7	83.3	83.8
75 th Percentile	66.6	83.3	91.7	87.5

Comparisons between the end of course test and the 6 month re-test show that the mean test score was 82.2% compared with a mean test score of 80.2%. This was not significant, there was no significant difference in knowledge measured at the end of the ILS course and 6 months later in the workplace (paired samples t-test, $t=0.82$, $p=0.42$).

A repeated measures analysis of variance confirmed the significance increase in pre and post course knowledge results ($F=70.1$, $p<0.001$) but also demonstrated a significant effect of professional group ($F= 2.08$, $p<0.001$) on knowledge score but no significant interaction between professional group and knowledge score ($F=1.75$, $p=1.77$). Put another way (see Table 7 below) Doctors performed better than other groups but all improved on their scores, indicating that the course worked equally as well for the different professions.

Table 7 Knowledge test scores for different professional groups

	Professional group	Mean	SD	N
Pre-course knowledge percentage score	Doctor	72.81	15.17	19
	Nurse	69.82	15.01	132
	Other	66.67	15.22	16
Post-course knowledge percentage score	Doctor	89.04	11.80	19
	Nurse	80.37	13.43	132
	Other	81.25	9.86	16

A repeated measures analysis of variance was also carried out to determine whether course location affected knowledge scores. There was no significant effect of course location on knowledge scores ($F=1.42$, $p=0.24$) nor was there a significant interaction between knowledge scores and location ($F=1.96$, $p=0.12$). In other words knowledge was not higher at any of the individual course locations and knowledge improved equally as well in all centres.

Finally the knowledge retention data were compared with knowledge retention data from a control group ($n=25$) who had reported receiving BLS training 6-months prior to the ILS course. Results were compared from the pre-course knowledge and skills test scores of this group with those from the 29 ILS course participants who were retested at 6 months. There was a significant improvement in knowledge retention (independent samples t-test, $t=-2.75$, $p=0.008$) in the group that received ILS training (80%) compared with the group that received BLS training (71%).

4.3 Pre and Post Course Skills Tests

171 participants were tested for their primary skills level before the course, of these 170 took part in the continuous skills assessment. The distributions of percentage skills scores for the two tests are shown in Figures 6a and 6b.

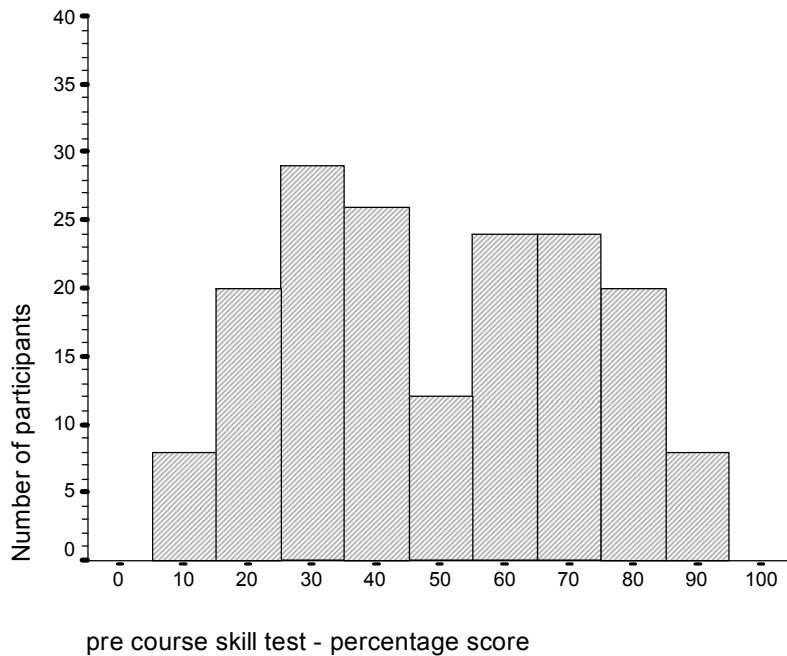


Figure 6a Distribution of primary skills assessment percentage scores

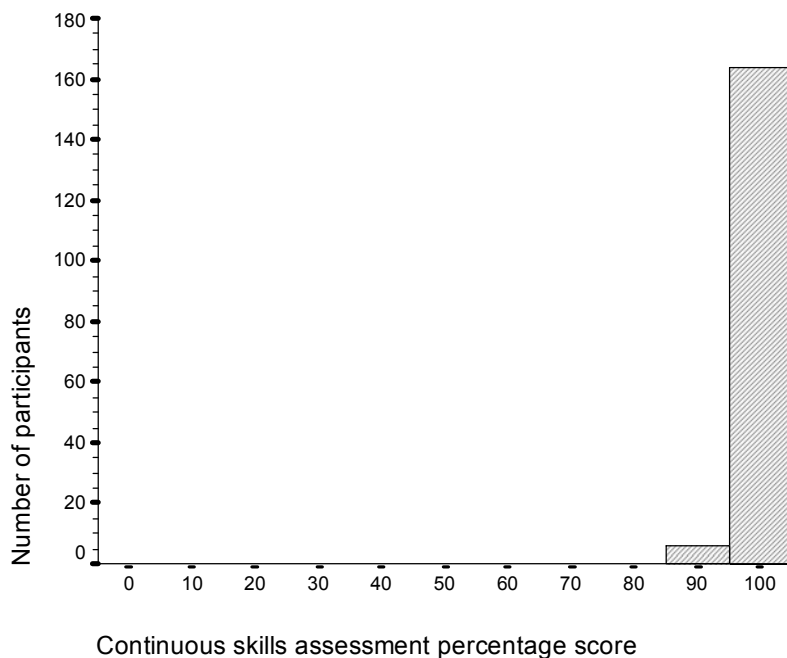


Figure 6b Distribution of continuous skills assessment percentage scores

Tests of normality showed that the skills data were not normally distributed (Kolmogorov-Smirnov $p < 0.001$). They also exhibited excessive kurtosis, therefore, non parametric statistics were used to analyse these data.

All participants showed a significant improvement in skills between the beginning and end of the course (Wilcoxon signed ranks, $z = -8.555$, 2-tailed, $p < 0.001$). The relationship between the pre and post course skills scores is shown in Figure 6c. As shown there was no significant correlation between the primary skills assessment and continuous skills assessment test scores (Spearman's ρ (2-tailed), $p > 0.05$).

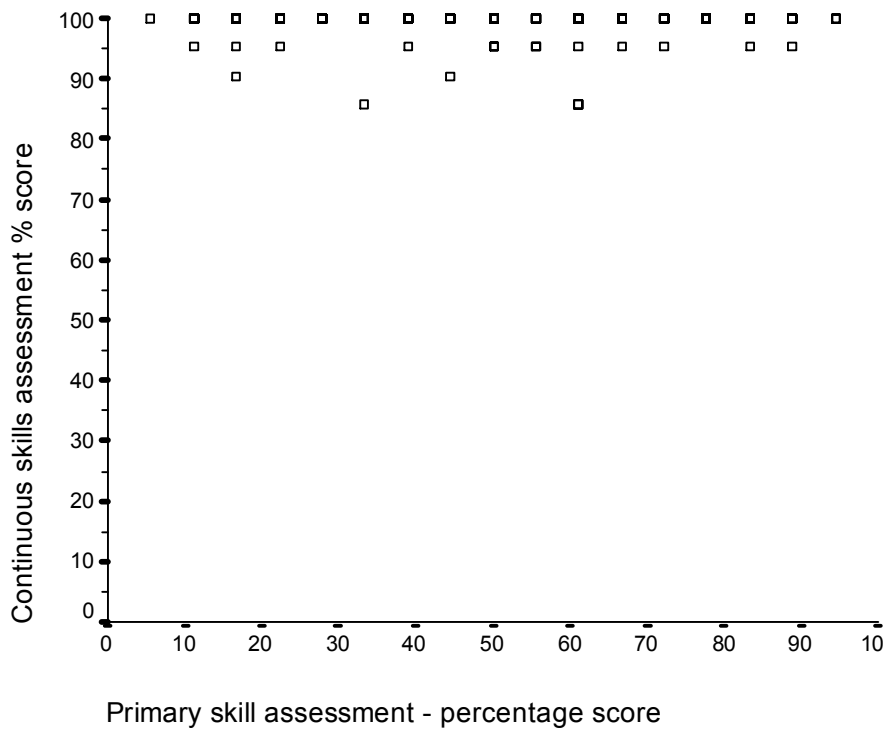


Figure 6c Relationship between pre and post course skills test scores
 A sub-set of 22 participants were tested for skills 6-months after completing the ILS course. The distribution of results is shown in Figure 6c.

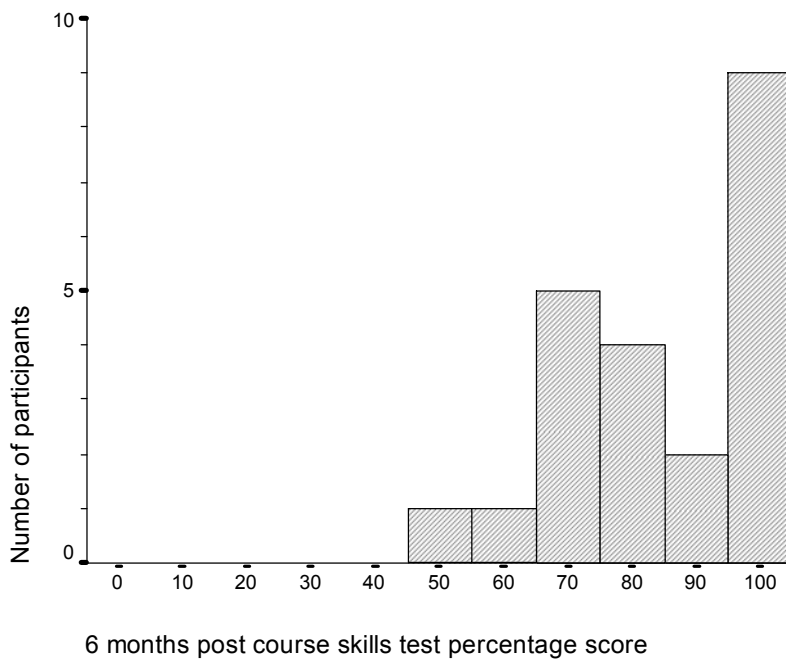


Figure 7 Distribution of 6-month skills test percentage scores
 Skills retention was investigated in 22 of the sub-group of course participants; Friedmans' non parametric test showed significant differences in skills measured pre ILS course, post ILS course and 6 months later (Friedman, Chi square = 33.8, $p < 0.001$). There was a significant deterioration in skills 6

months after the ILS course (Wilcoxon signed ranks test, $z=-3.1$, $p=0.02$). The mean skills percentage score measured 6 months after attending the ILS course was 85.3% compared with a mean skill score of 99.2% measured at the end of the ILS course. In addition the skills retention data were compared with the pre-course primary skill assessment data (mean score 49.5%) and showed that ILS candidates skills measured 6 months after attending the course were significantly higher than pre-course levels (Wilcoxon signed ranks test, $z= -3.7$, $p<0.001$).

Summary statistics for the skills test scores are presented in Table 8.

Table 8 Summary statistics for skills test scores

	Primary skill assessment % score	Continuous skill assessment %score	Skill assessment 6 months later % score
Number of participants	171	170	22
Mean	49.5	99.2	85.3
Std. Deviation	22.65	2.65	15.9
Skewness	0.09	-3.75	-0.71
kurtosis	-1.04	14.78	-0.55
Minimum	6	86	50
Maximum	94	100	100
Percentiles			
25 th	33.3	100	72
50 th (Median)	50	100	88.5
75 th	66.7	100	100

The skills retention data were compared with skills retention data from the same control group ($n=25$) identified for knowledge retention data. The mean skills percentage score for the BLS trained control group was 58.7% compared to the 85.3 % retention level of the ILS group demonstrating a significant improvement in skills retention for the ILS trained group (Kolmogorov-Smirnov 2 sample test, $z=1.86$, $p=0.002$). So although there was a significant loss of skills 6 months after attending the ILS course, the ILS course still provided added value over a BLS course in terms of skills retention.

4.4 Participants' Course Evaluation Data

Participants were asked to evaluate the course using the evaluation sheet shown in Appendix A. Various aspects of the course and the individual sessions were rated using a 5-point rating scale.

Figures 8 to 14 show the distribution of rating scores for general aspects of the course, grouped for individual venues. The general aspects of the course that were rated included:

- How well the course manual helped participants prepare for the course,
- How well the course met participants' objectives,
- How much participants enjoyed the course,
- How relevant the course was to participants' current practice
- The overall quality of the lecturers
- The quality of the equipment used on the course.
- The quality of the course venue

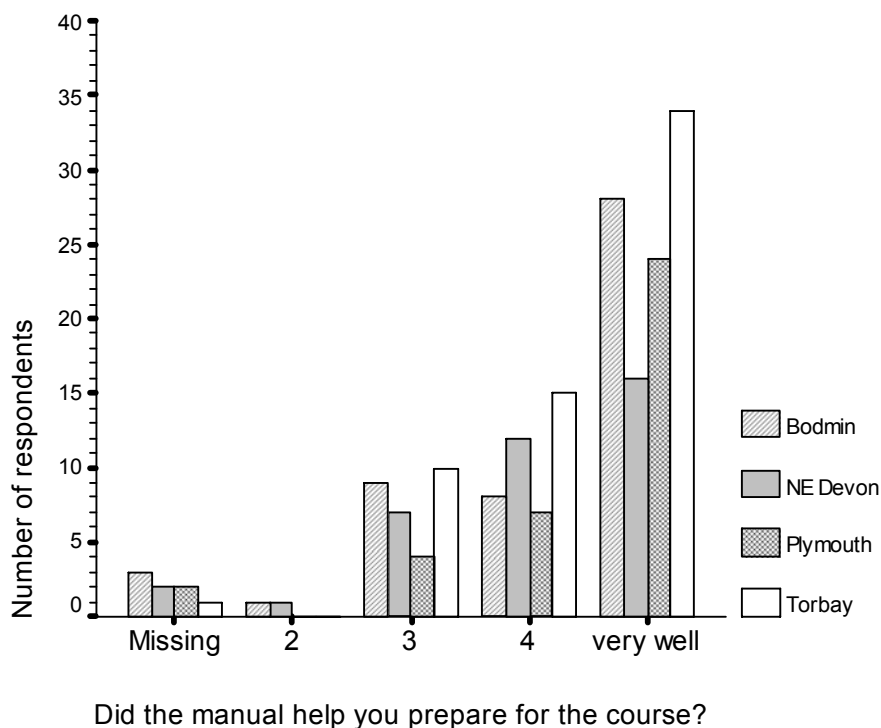
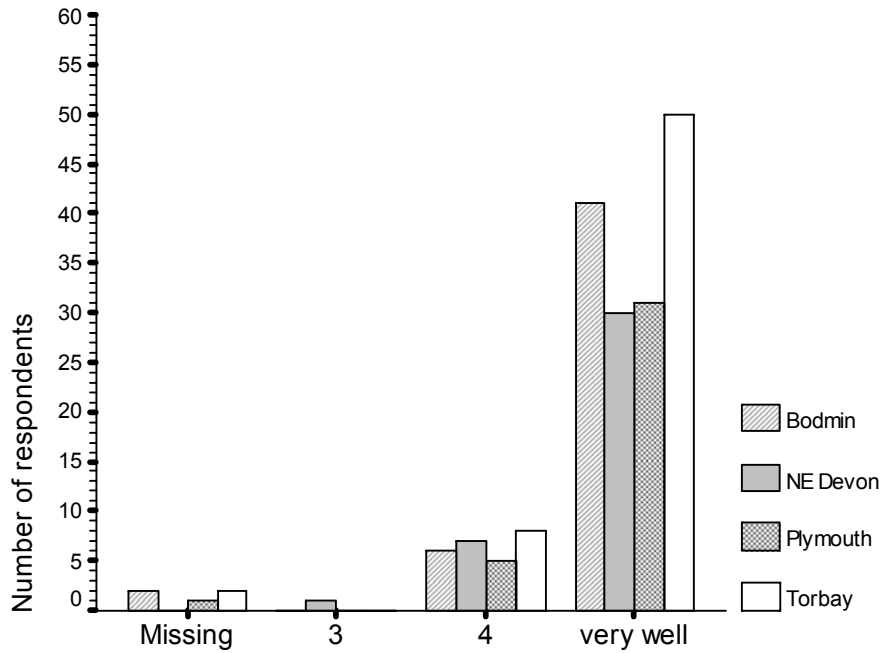
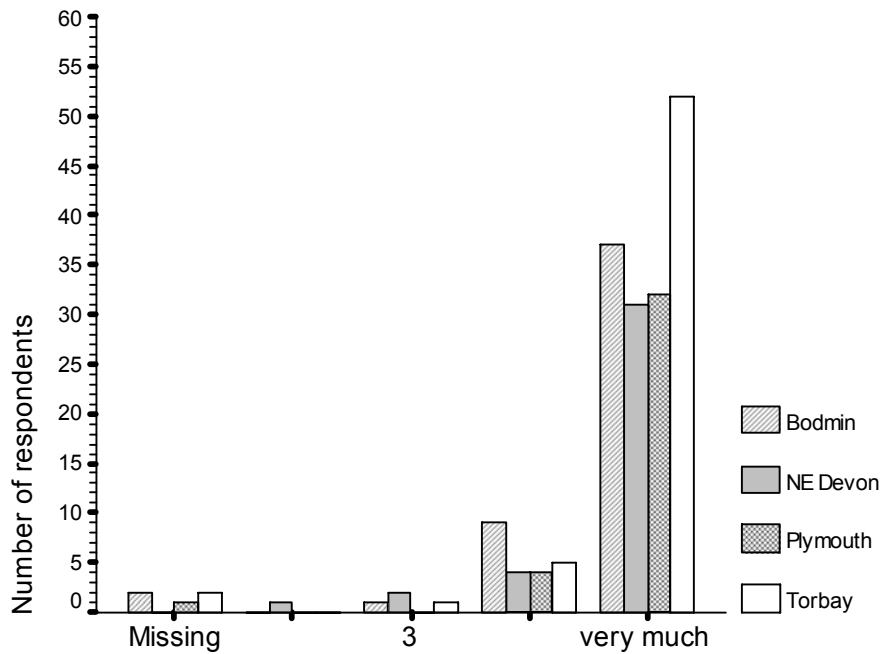


Figure 8 Distribution of rating values for how well the course manual helped participants prepare for the course.



Did the course meet your objectives?

Figure 9 Distribution of rating values for how well the course met participants objectives.



How much did you enjoy the course?

Figure 10 Distribution of rating values for how much participants enjoyed the course.

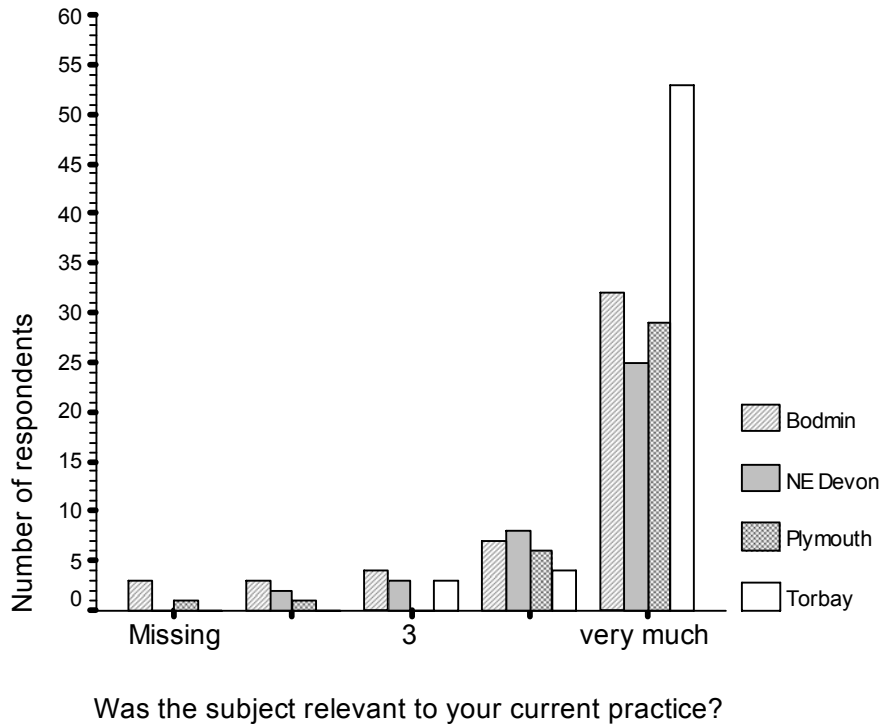


Figure 11 Distribution of rating values for how relevant the course was to participants' current practice.

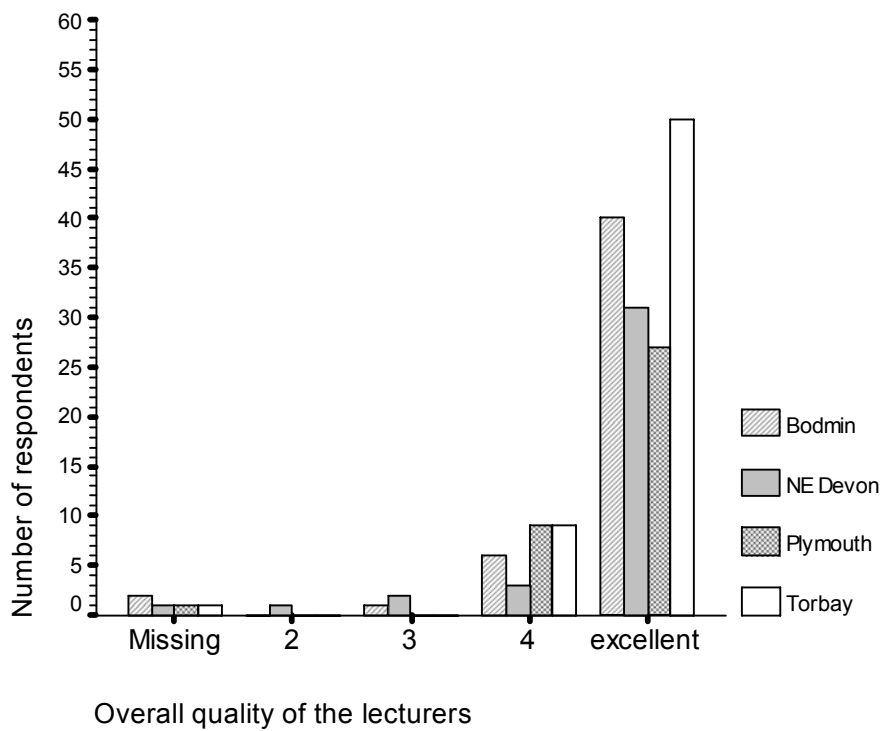


Figure 12 Distribution of rating values for the overall quality of the lecturers

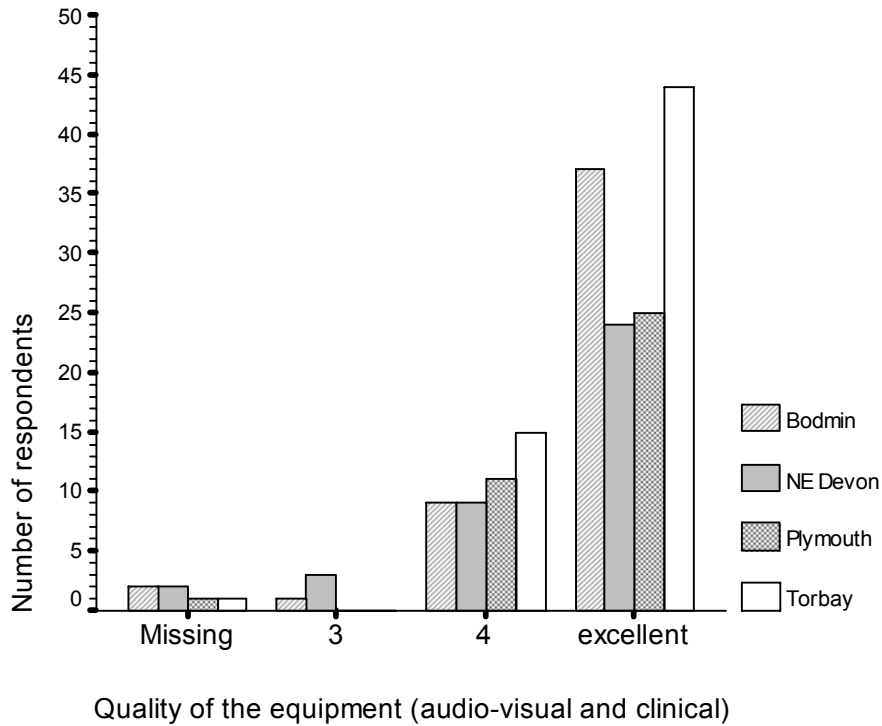


Figure 13 Distribution of rating values for the quality of the equipment used on the course.

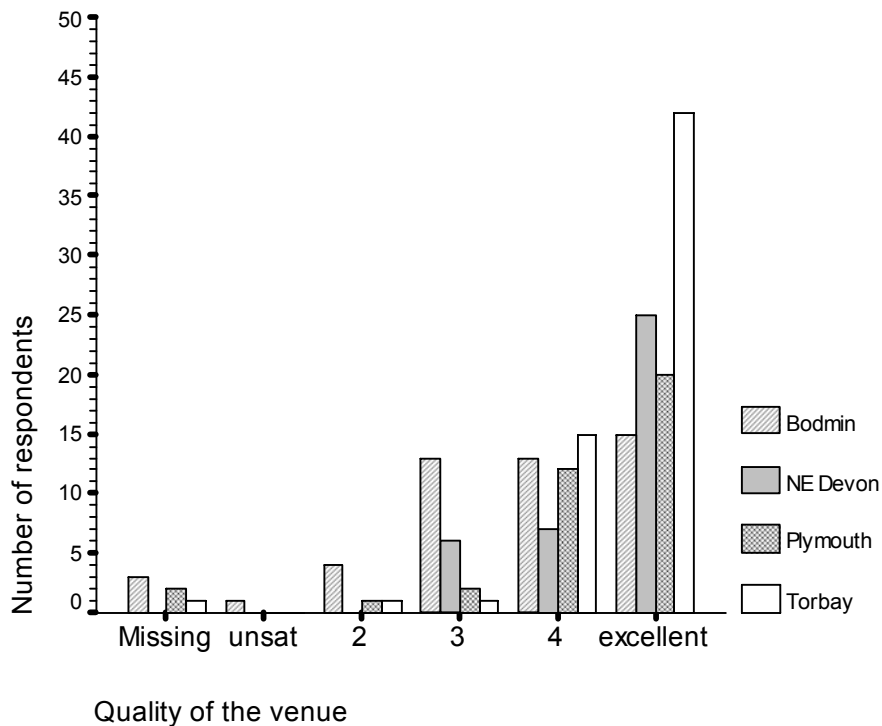
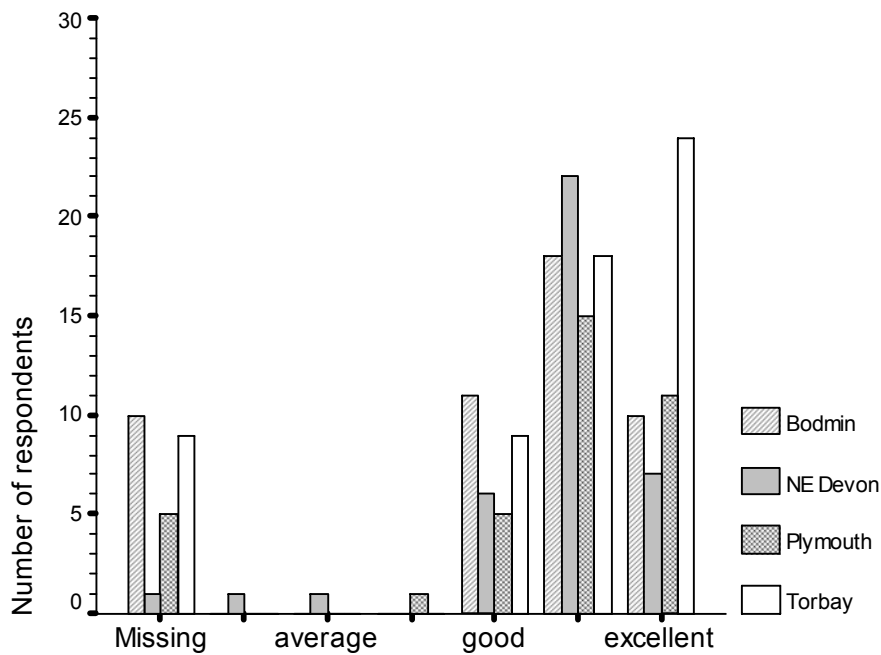


Figure 14 Distribution of rating values the quality of the venue.

The distributions of rating values for individual teaching sessions are shown in Appendix F together with a record of the written feedback received for each course. These sessions were highly rated, with most participants scoring on the scale at 4 or above. An overall rating for the course was also obtained

using a 10-point rating scale and the distribution of rating values is shown in Figure 15.



What is your overall rating for the course?

Figure 15 Distribution of rating values for the overall rating of the course.

4.5 Summative Evaluation – Stakeholder Focus Group Themes

Focus groups were convened to obtain the views of ILS trainers, line managers of course attendees and education coordinators. A summary of the relationship of these stakeholders to the ILS training programme is shown in Figure 16 showing their principal interests. The main themes elicited from the focus groups are shown in Figure 17. They have been divided into formative themes, summative themes and global moderators. Some of themes were identified by more than one focus group and these are shown as overlapping the different areas on the model.

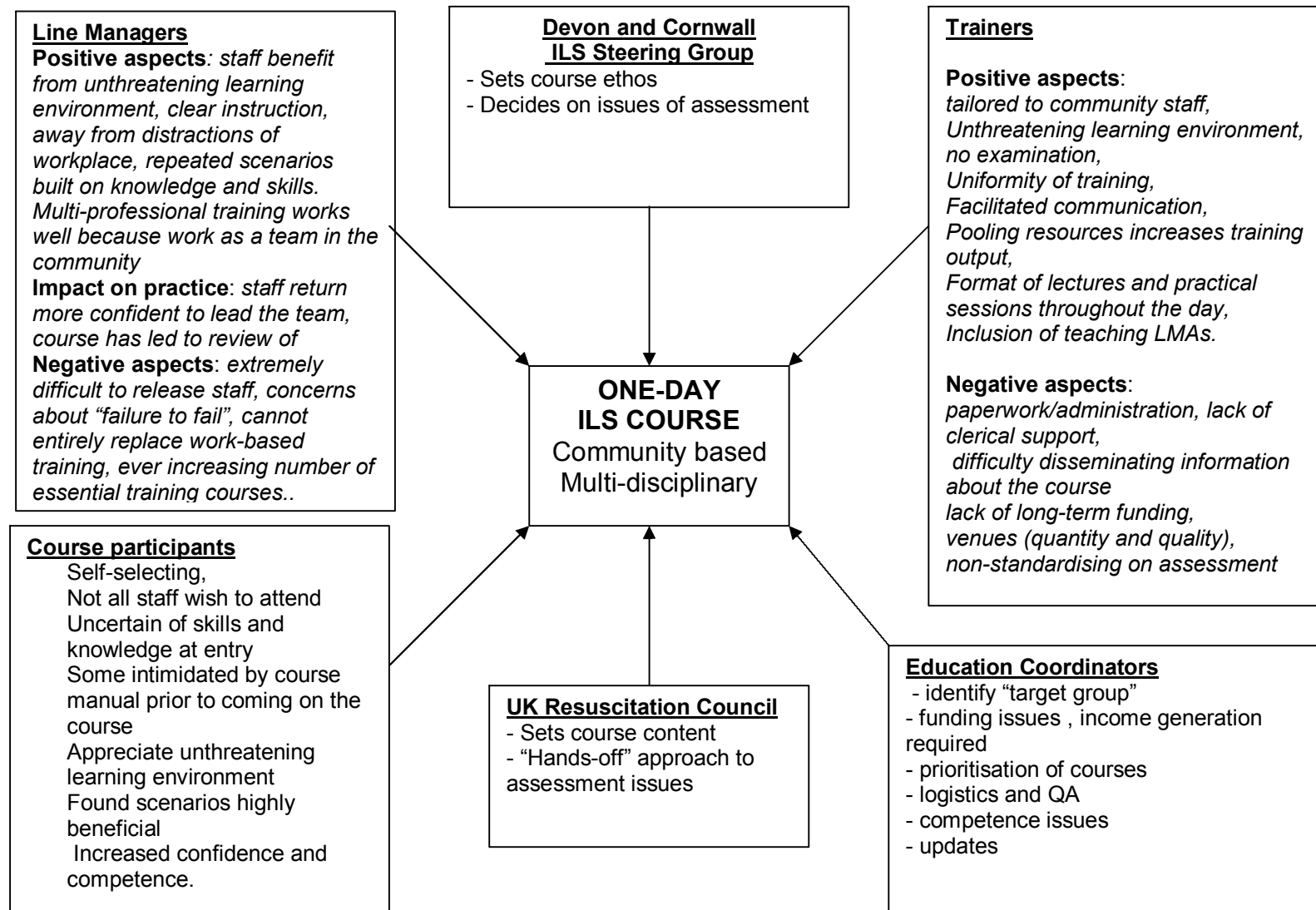


Figure 16: Summary of principal Interests of ILS Stakeholders

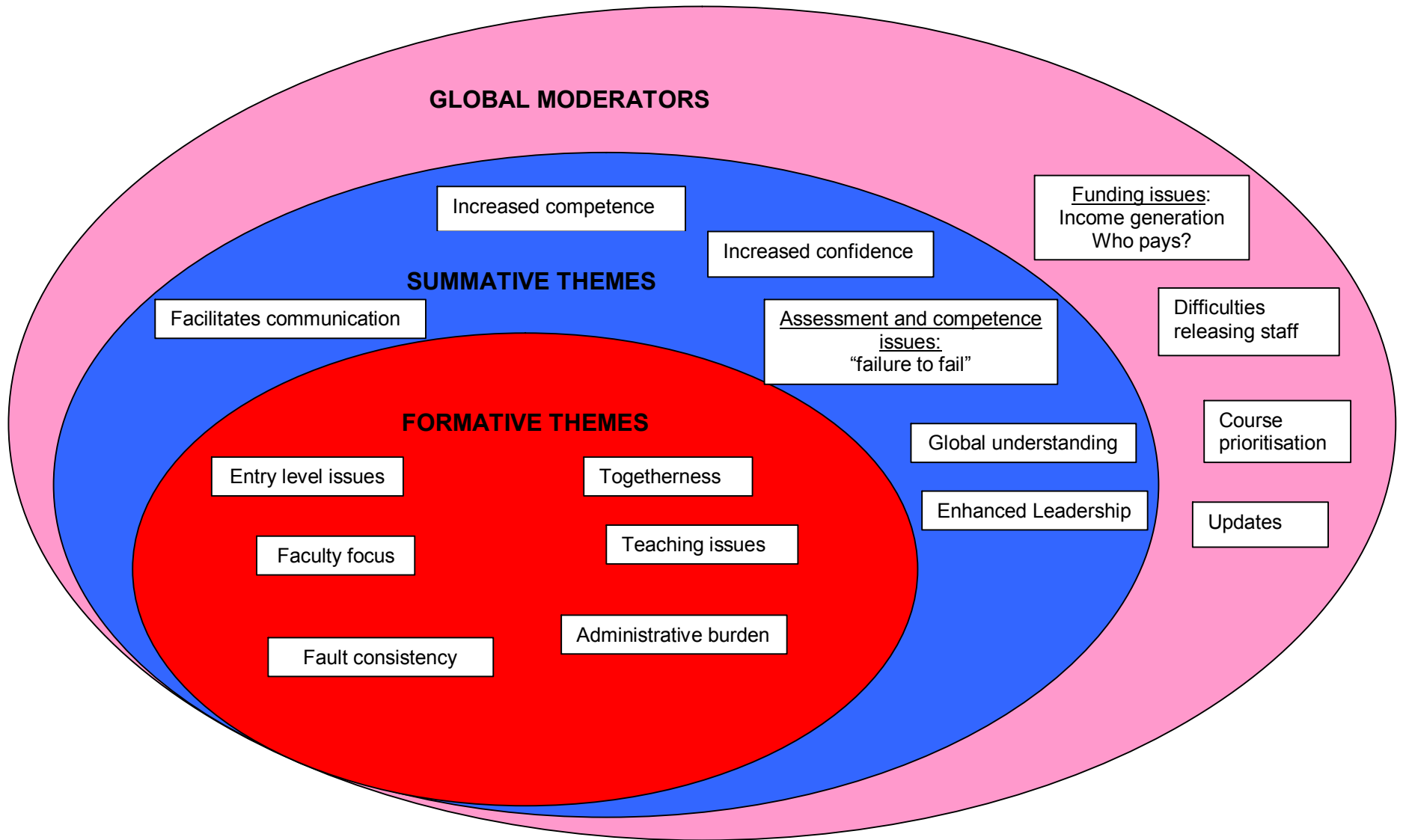


Figure 17: Model of Focus Group Themes

5 Discussion

The following discussion combines the above results into the evaluation format of Clark (1995) Level 1 to Level 4.

5.1 Level 1 (Reaction) - Participant feedback

The ratings for different aspects of the course, shown in Figures 9 to 15, were generally very high. Participants enjoyed the course and this was strongly reflected in the written feedback given. Some participants were nervous but appreciated the relaxed learning environment. Participants also appreciated the balance of lectures and practical activities. There was an overwhelmingly positive response to the quality of the lecturers. It was evident from the written feedback (additional comments) that participants really enjoyed the course and more than that, they were grateful for the training received. There was very little negative feedback, which came from community first responders who were unfamiliar with the medical terminology used.

Most participants found the course relevant to their current practice, although one commented that ILS is rare in psychiatry. Yet, ten out of 46 places at the Bodmin centre were filled by mental health nurses and psychiatrists. This raises issues about the 'need to know' bearing in mind the resources and time constraints on NHS staff. The average number of arrests seen by course participants over the preceding year was zero and the average for nurses was one and 11 for doctors over the preceding 5 years (Table 5). Considering the infrequency of arrests and the very low survival rates in the community, Trusts may be well advised to have a more focused strategy of 'need to know most'.

Many respondents commented they had not read the course manual sufficiently prior to attending the course. Some found its contents "a lot to take in". Non-medics found the medical terminology difficult to understand. Others appreciated the manual and found it clear and very readable. It was also felt to be a useful reference after the course.

When asked what aspects of the course were of most benefit, many participants responded "all of it". Certainly, all areas of the course were highlighted individually in response to this question. The skills practice was considered to be particularly beneficial.

When asked what aspects of the course were of least benefit, many participants gave further positive endorsements of the course, stating "none" or "all beneficial". Drug administration was highlighted by some of the respondents. This is likely to be indicative of the different training needs of less qualified staff and primary care first responders.

Participants were asked what could be included to improve the course and many responded that they couldn't think of anything. However, some participants suggested more on drug administration (but more said this was the least beneficial aspect of the course). Others wanted more time to practice skills, two participants suggested video and it was suggested that ILS training could be combined with ALERT training (a course that highlights early warning signs for deteriorating patients).

In response to the question "how will your professional practice be influenced by attending the course" the overwhelming feedback was that participants would be returning to the workplace with increased confidence. Some participants said they would review the equipment available at the workplace on their return.

Perhaps the response of participants to the course is best summed up by a respondent's written feedback from the Plymouth (11/11/04) course: "Thank you very much for an enjoyable and interesting day. I have learnt a lot and feel much more confident in my own practice and abilities in an emergency situation".

5.2 Level 2 - Learning Outcomes

Knowledge

Participants entered the course with a relatively high level of knowledge. Their mean pre-course test score (69.7%) was significantly higher (Independent samples t-test, $t=3.28$, $p=0.002$) than the 44 staff who were tested at the start of a BLS course (whose mean test score was 60.6%). This difference may be attributable, at least in part, to preparation for the course, including reading the course manual.

There was a significant correlation between pre and post course knowledge test scores. It can be seen from Figure 5 that some participants had a reduction in knowledge test score at the end of the course. 29% course participants showed no improvement or a decrement in knowledge at the end of the course. This may have been due to a 'lack of match' to their learning style or perhaps to fatigue; at least one participant attended the course immediately after being on a night duty. No clear patterns emerged from the data to provide an explanation for the reduction in knowledge. There was nothing to distinguish the sub-group of 21 participants whose knowledge score deteriorated, in terms of profession, training location or age group.

Despite this apparent anomaly, overall there was a significant improvement in knowledge test score (paired sample t-test, $t=-10.56$, $p<0.001$) at the end of the course.

Repeated measures analyses of variance allowed comparisons to be made between knowledge scores at different training centres and for different professional groups. The results showed a significant effect of the course on knowledge but no significant effect of course location and no significant interactions between course location and knowledge. This suggests that the training centres were performing equally well. There was a significant effect of professional group on knowledge score (Doctors scored higher) but no significant interaction between professional group and knowledge score, indicating that knowledge improved equally for the different professional groups.

Skills

Participants entered the course with lower levels of skill than knowledge. The mean score from the primary skill assessment was 49.5% (compared with a mean pre-course knowledge score of 69.7%). There was a significant improvement in skill development for all candidates, the majority of participants scored 100% in the continuous skills assessment (CSA) by the end of the course, indicating that they were fully competent in all the skills of BLS, airway management and defibrillation. However, as discussed in the following focus group reports there was considerable controversy about assessors judgment of skills; some appeared to take a forthright 'right or wrong' approach (the hawks) whilst others were more flexible (the doves) yet no students were failed on the course. Perceived incompetence appeared to be addressed by coaching through each skill section to ensure each box was ticked, leaving doubts about

overall competence for the linking of skills and for autonomous skills in the workplace.

5.3 Level 3 Performance - Skills and knowledge retention

Skills and knowledge retention were investigated in the workplace 6 months after participants had attended an ILS course in a randomly selected sub-group of 29 course participants. The sub group comprised 23 nurses, 4 doctors and 2 others.

Knowledge

The mean test score was 80.2% compared with a mean test score of 81.4% at the post course knowledge test for the sub-group which was not significant. There was no significant difference in knowledge measured at the end of the ILS course and 6 months later in the workplace (paired samples t-test, $t=0.82$, $p=0.42$).

The knowledge retention data were compared with knowledge retention data from a control group ($n=25$) who had received BLS training 6-months previously. Results were compared from the pre-course knowledge test scores of this group and compared to those of the 29 ILS course participants retested at 6 months. The mean knowledge test score of the control group was 71% compared to 80% of the ILS group. This was a significant improvement in knowledge retention (independent samples t-test, $t=-2.75$, $p=0.008$) in the group that received ILS training compared with the group that received BLS training indicating the added value of ILS.

Skills

Skills retention was investigated in 22 of the 29 course participants; Friedman's non parametric test showed significant differences in skills measured pre ILS course, post ILS course and 6 months later (Friedman, Chi square = 33.8, $p<0.001$). There was a significant deterioration in skills 6 months after the ILS course (Wilcoxon signed ranks test, $z=-3.1$, $p=0.02$). The mean skills percentage score measured 6 months after attending the ILS course was 85.3% compared with a mean skill score of 98.9% measured at the end of the ILS course.

In addition the skills retention data were compared with the pre-course primary skill assessment data (mean score 49.5%) and showed that ILS candidates skills measured 6 months after attending the course remained significantly higher than before they attended the course (Wilcoxon signed ranks test, $z = -3.7$, $p<0.001$). In other words skills do not decline to pre-course levels by 6 months.

However, Kaye et al (1991) have suggested that the problem of poor CPR skills retention may lie, in part, with inaccurate skill evaluation by instructors. As discussed above, the distribution of skill scores from the ILS continuous scores assessment suggest that the assessment sheets were being used as a teaching aid to ensure participants could demonstrate the required skills and may not therefore be an accurate measure of actual performance at the end of the course.

The skills retention data were compared with skills retention data from the same control group ($n=25$) identified for knowledge retention data. The mean skills percentage score for the BLS trained control group was 58.7% compared to the

85.3 % retention level of the ILS group demonstrating a significant improvement in skills retention for the ILS trained group (Kolmogorov-Smirnov 2 sample test, $z=1.86$, $p=0.002$). So although there was a significant loss of skills 6 months after attending the ILS course, the ILS course still provided added value over a BLS course in terms of skills retention.

5.4 Level 4 Impact - Themes from focus groups

Trainers' Focus Group Findings

Six trainers took part in the trainers' focus group, all of whom were involved in training on a weekly basis (spending between 1 and 4 days per week training). They had between 18 and 27 years of experience as health care practitioners and had between 3.5 and 19 years of training experience. All trainers had been involved in at least one resuscitation attempt in the last 5 years and one had experience of over 30 resuscitation attempts in that time. Most trainers were ALS instructors (one was an ALS provider) and most had GIC training. All trainers were involved in training on other courses as well as the ILS course.

The group discussed what was good about the ILS course. They felt that tailoring the course to primary care staff and providing an unthreatening learning environment were both highly beneficial. They were pleased that the ILS course provided a uniformity of training and facilitated communication on a number of different levels: It provided a networking opportunity for primary care resuscitation officers, it facilitated understanding between district general hospital staff and primary care staff, and it promoted a 'common language' in the workplace. The trainers also appreciated the establishment of the steering group to talk about the process of training. They recognised that the pooling of resources had led to an increased training output.

Negative aspects of the course were also discussed. These all pertained to administration, with the important exception of assessment issues. The group recognised that not standardising on assessment was a problem and the issue was discussed in some detail. The group felt that the assessment process was subjective and talked about "hawk or dove" assessor types. They felt that there was a need for a faculty meeting to agree a required standard. In making assessments, they were interested in the global picture, 'have the mistakes made put the candidate or the patient in danger?' They felt it would be useful to have a space on the form to write comments to justify the assessment made. They noted that they had a 100% pass rate which was not mirrored in the rest of the UK (although, the national failure rate is extremely low, and so their success rate is fairly typical in relation to the rest of the country). The group highlighted paperwork and administration as burdensome and complained that they lacked clerical support. They also experienced difficulty accessing the appropriate people to disseminate information about the course. The quality of the venue in Cornwall was raised as a problem as was the lack of provision in Exeter and mid-Devon. The group expressed concern about the lack of long term funding for the course.

Teaching materials were discussed. The format of lectures and materials throughout the day and the inclusion of teaching LMAs were felt to be beneficial. The lectures were considered to be fine but possible modifications to the first lecture and the ECG recognition lecture were identified. The group

decided to input their ideas for modification to the Resuscitation Council (UK) for review. They suggested extending the scenarios to include ABCDE and drugs. They felt that the content of the course manual was good and noted that it avoided the need for hand-outs. They felt that it was a useful post-course reference but were concerned that course candidates did not read it sufficiently before attending the course. They recognised the need to stimulate candidates to read the manual prior to the course and felt that the pre-course test administered as part of this evaluation might be useful in this context.

The trainers were asked about their perceptions of candidates' skills and knowledge in relation to the course, and retention of skills and knowledge. The group felt that both skills and knowledge were highly variable at entry and depended on the candidates' background, and whether they had read the manual. Candidates on initial courses were thought to have higher skills than candidates on later courses. The group felt it was notable and "scary" that BLS skills were poor despite annual updates. They noted the same mistakes being made: failure to open the airway, call for help and check for safety, for example; *"It's trying to remind them in their breathing that they should go very slowly, they all go too fast because of the adrenaline. So instead of saying 1.5 to 2 seconds, I say p-l-e-a-s-e-d-o-n-'t-vo-m-i-t. And they all go slow now"* (Trainers' FG p26 29-31)

When asked about retention of skills and knowledge, the trainers felt that it depended on whether they were taught before, whether they were taught properly and how often the skills were used. They felt that technology helped retention of skills, particularly the introduction of talking defibrillators. Entry level issues were discussed and the group felt that the course should be open to anyone likely to be a first responder and anyone that has access to the appropriate equipment. It was felt important to expand the course into primary care because of the large difference in resources, personnel and situations, compared to secondary / general hospital settings. The trainers were asked about the value of the course and its likely impact on practice. They felt that the course was very beneficial and led to increased confidence. They felt that the very positive feedback that they had received from participants was down to the format of the course and to the group of lecturers involved. They expected the course to become the base-line standard for staff and it would influence training in hospitals, with non-clinical staff receiving BLS training and clinical staff receiving ILS training. They were concerned that the course wasn't mandatory and felt that this had implications for the future, particularly in relation to funding.

Line Managers' Focus Group Findings

Four nurses (three F grade; one E grade) took part in the line managers' focus group. They had between 20 and 33 years of experience as health care practitioners and were responsible for between 6 and 21 members of staff. They had each sent between 3 and 10 members of staff on the ILS course and allocated between 5 and 10 days to each member of staff per year for training. Three of the participants had not themselves been involved in a resuscitation attempt in the last 12 months, although, one participant had been involved in two attempts during this period. Three of the participants had been involved in at least one resuscitation attempt in the last 5 years and one had been involved in seven attempts. An additional interview was carried out with a G grade nurse who was responsible for 29 members of staff and had sent 10 of them on the

ILS course. All the line managers had attended the ILS course themselves and so had first hand experience of it.

The line managers were asked what they liked about the ILS course. As course attendees, they appreciated the course being away from their workplace, *“it is an isolated day where you are not being pulled back into work”* (Stakeholder 1 FG p1 35). They thought that the instruction was very clear and that untrained staff didn't feel intimidated. They noted that everybody was from a primary care background and nobody was particularly confident, which was reassuring. They appreciated the scenarios and felt that repeating things throughout the day led to increased confidence: *“a trained nurse, who came back, she is so much more confident., she is capable of leading a team now if there is an arrest whereas before she was quite nervous and was unsure about her knowledge and skills”*. (Stakeholder 1 FG p2 13-15). They felt the multi-professional nature of the course worked well because of the team nature of health practitioner work in the community: *“If you do the course with all the different disciplines you realise as you do it that you are probably as capable ----- boundaries, they sort of disappear a bit in that day and I think that improves your confidence for when there is a situation at work”* (Stakeholder 1 FG p20 35-38).

Line managers also reported that attendee's impression of the course was being fed back into the workplace. Some of their staff had been daunted by the prospect of a full-day training programme but had been reassured by those who had attended.

They appreciated that the course information came out in good time (about a month before the course), which allowed time for staff to read the manual before attending. They liked the course manual; they thought it was well written and thought the illustrations made it user-friendly. They also thought it was a valuable reference for after the course.

When asked what they disliked about the course, they said that as attendees they found it was a long day. They were concerned how long candidates would retain the information they had been taught and felt that it would be useful to have something to support it – possibly more references and scenarios for use back in the workplace. Their major complaint, however, was the difficulty of sending staff on the course: Comments such as *“we have got a huge range of mandatory training that staff have to attend. Then we don't get the back-fill to support that., so then we get told off, I'll say politely, for the amount of agency staff that we are trying to bring in to cover”* (Stakeholder 1 FG p7, 37-39) and also *“Every faction thinks that their course is the most important thing that you should be doing”*. (Stakeholder 1 FG p10, 1) reflecting their frustrations with staff training issues. They did think the ILS course was very good, however, they did not think the course should be mandatory.

The group discussed selection of candidates for the ILS course and a diverse range of views were expressed. One participant had sent untrained staff and was pleased that they had shown their capability. Another participant expressed concern about putting pressure on untrained staff and was worried about accountability issues of health care assistants using defibrillators. It was generally agreed that the decision on who to send on the course should be made at a local and individual level. They felt that there was still a very big place for having training within the workplace using their own equipment and facilities.

An important issue raised in the focus group was that of assessment of competence. Despite having attended the course, the line managers were unclear about the assessment process. They said that as candidates they would have felt under pressure if it was a pass/fail course and they may not have wanted to go so much if they thought there was a pass/fail criterion. However, from a manager's point of view, they felt differently: *"If you are giving someone a whole day off you want to get something out of it, so I think yes, some sort of competency at the end of it ---- Of course, if they are not competent at least you would know that as well, so that is valuable and you would have a responsibility to do something about it"* and later *"My pond it so small that all my fish need to be competent"* (Stakeholders FG(1) p18 26-30 and p19 19)

They felt it was appropriate to have different levels of competence, depending on the candidate's role back in the workplace. They recognised the difficulties of failing someone in a group, but their main concern in relation to assessment was their perception of a "failure to fail".

Education Coordinators' Focus Group Findings

Four education coordinators took part in the focus group; they had been employed in their current roles for between 10 months and 3 years and involved in training for between 10 months and 4 years. Two of the four participants had training qualifications (ENB 998 and Cert Ed), none of them were currently teaching or training on a regular basis. They were responsible for commissioning and provision of all training in their Primary Care Trusts. They each provided a training service for between 894 and 2200 members of staff.

The education coordinators lacked detailed knowledge about the content of the ILS course and were uncertain about how the primary care based course differed from any other ILS course. They understood that the course offered more advanced life support skills than BLS and that there was a cost associated with course materials which meant it couldn't be delivered free of charge.

The group discussed requirements for training in general terms, stating that training requirements are governed by policies and they also work with their risk department to get clarity on the need for updates. In relation to the ILS course, they were governed by the resuscitation policy and advised by the Resuscitation Officer of the need for the ILS course and its annual update.

Other drivers for ILS training included mental health and the publication of the Bennett report which identified the need for BLS instruction for all staff involved in restraint.

The requirement to attend training was attached to a 'target group'. The education coordinators had identified their target groups for ILS training and were beginning to address the issue of funding but still deciding how and what sort of programme to put together. The target groups identified were those practitioners in first line contact with the public such as Minor Injury Units and those in charge of community hospital wards; the cardiac team, cardiac rehab and heart failure service. There was concern about the cost of the training and that the relatively small number of staff trained to date represented the 'tip of the iceberg'. One trust had identified 178 members of staff for training and indicated that the cost was over £9000. Another trust was looking at the ILS course in relation to others, such as the ALERT course, to establish a priority and determine where it fitted in with the overall Trust provision.

The group discussed funding issues and the decision making process. They anticipated difficult times ahead with funding, particularly funding training from operational budgets at a local level. All potential courses had been through their risk department and had a risk ranking attached to them with a Trust weighting applied in order to develop an informed training needs analysis. The education coordinators fed directly into the decision making process but struggled to make decisions due to the lack of national and regional policy guidance.

When asked about entry level issues, they felt that the cost implications may limit the course to qualified staff. Training health care assistants was considered to be an 'ideal world' situation. However, they were trying to build the process of identifying training needs into local risk assessments, to devolve accountability. They wanted to make use of the appraisal process; *"if staff feel they have become de-skilled or they have moved roles between times that we will support them booking on (the course) earlier"*. (Ed Co-ordinators FG p3 33-34). They felt the key was to get people that were interested and really wanted to do the course.

They wanted to see the future ILS courses provided free-of-charge with income generated. They expected ILS providers to find external candidates to subsidise the cost of the course. *"We are providing the equipment, the resuscitation officers and very often the venue. We are already contributing"*. (Ed Co-ordinators FG p10 28-29).and *"So the people running the course should be generating income to continue running it?"* (Ed Co-ordinators FG p10 32-33). However, they also felt that it was not a bad thing to expect local managers to fund some of the training. *"It establishes ownership and makes people turn up. On the other hand it is another cost pressure"* (Ed Co-ordinators FG p9 34-35).

The group discussed logistics and quality assurance issues. From their point of view, they felt that an annual one-day ILS course was easier to manage than more frequent episodes of training in the workplace. Work-based training was seen as beneficial because staff did not need to be released from work. However, the group found team based training logistically difficult to organise and record and there were difficulties in releasing staff to teach other staff in the workplace. They also had lots of trainers that could teach BLS but few that could cover ILS. They were concerned to balance ease of administration with providing the best training for establishing and maintaining competence.

The group discussed issues of competence. They were constantly being quality assured and levels of competence were always an issue for them. They wanted to be sure that the ILS course provided competence and that it was of an appropriate standard. However, there was a general lack of awareness about the assessment of competence on the course. The general feeling of the group was summed up by this comment *"For me it is to send them on something that I believe is a quality assured course, that sends me a practitioner who is capable of carrying out that procedure, and I would expect the course tutor to fail someone or to tell me if the person they are sending out at the end of the day is not competent"* (Ed Co-ordinators FG p6 1-5). However, the group also recognised that this might be off-putting to potential candidates; *"Individuals themselves, don't want to be put forward for the training because they don't want to run the risk that they are deemed to be competent but inwardly don't feel confident in that skill. But feel, once they have been put through a training course, there is an expectation on them"*. (Ed Co-ordinators FG p6 16-19)

The group discussed skills and knowledge retention and the need for annual updates. They stated that annual updates were a huge commitment but thought that they must be a requirement because of the skills component of the ILS course. They were looking for research to quantify skills retention. They felt that the issue of updates was a problem for all companies engaged in mandatory and statutory training because of the lack of clear guidelines.

Finally, they felt that registered practitioners had a responsibility to maintain their own skills either through clinical practice or attendance at update courses.

Key themes from Focus Groups

Figure 17 shows a model of the key themes arising from the focus group discussions. They have been divided into three categories; formative themes, summative themes and global moderators. The formative themes were largely identified by the trainers and arose from the process of running the ILS courses. A theme arising from the trainers' focus group was that of togetherness; providing a community focus for students and close links for resuscitation officers, for example;

"I think the ILS course has been brilliant for community staff because they have all been together. Just the community staff and not having to go on a DGH course so they don't feel intimidated. Its like minded people and they feel more confident out in the community setting." (Trainers' FG p1 32-35)

The benefits of this were tangible in that it created a beneficial environment for course participants to learn new skills and knowledge, (reflected in their feedback) and it improved communication outside of the course (global understanding was identified as a summative theme). The trainers recognised the logistical strengths of working together and the importance of a faculty focus. They also highlighted an administrative burden which the ILS steering committee may wish to address.

Assessment and competence issues were a theme common to all three focus groups. Trainers recognised the need to standardise assessment procedures ("hawks and doves") for example, in a discussion about assessment;

"They (students) might achieve it all but not necessarily in the right order, so if you're more dovish you will think OK yeah they have achieved it. If you are a hawk, you will say oh they did that first and they shouldn't have, which some might say is a bit pedantic" (Trainers' FG p34 32-35)

The line managers were concerned about 'failure to fail'. There was a general lack of clarity about the assessment process. Line managers and education coordinators both felt that an assessment of competence should be made and candidates should be failed if necessary, for example the above mentioned quotes;

"If you are giving someone a whole day off you want to get something out of it, so I think yes, some sort of competency at the end of it ---- Of course, if they are not competent at least you would know that as well, so that is valuable and you would have a responsibility to do something about it" and later *"My pond it so small that all my fish need to be competent"* (Stakeholders FG(1) p18 26-30 and p19 19)

Summative themes also emerged. The ILS course was considered to develop competence and confidence and enhance the leadership of the cardiac arrest team. Resuscitation officers were also seen to have an important leadership role in organising the courses and advising the education coordinators.

The global moderators identified will have an effect on future ILS courses. A theme from the line manager's focus group was the difficulty of releasing staff to attend the course. This difficulty was reflected in the fact that none of the courses evaluated were fully subscribed. A theme arising from the education coordinators group was the issue of funding. Lack of future funding means that course providers are expected to generate income to make the courses self-sustaining. They may need additional administrative support to enable them to do this and consideration should be given to how this might best be provided. The generation of external funding might be achieved by offering places on the ILS course to GP surgeries and community first responders. However, these first responders, having different backgrounds, will have different training requirements; therefore careful attention will need to be paid to their allocation of places on specific courses.

Demand for the course is expected to increase substantially and the ILS steering group have been asked to pilot three of the new instructor courses developed by the Resuscitation Council (UK). As a result, the steering group is likely to have a continuing and expanded role in quality assurance of the ILS course. A key factor that needs to be addressed by the steering group is the issue of assessment and "failure to fail", this will become increasingly important as more trainers get involved in the ILS programme. Graham and Lewis (2000) provide a simple system for scoring BLS ability. Chamberlain et al (2003) provide assessment guidelines for BLS and AED. These references might form a useful basis for reviewing current faculty assessment practice.

The need for annual ILS updates was recognised as a problem by line managers and education coordinators because of difficulties releasing staff and funding the places. The issue of updates and refresher training needs to be addressed by the steering group. Candidates attending ILS courses carried out twelve months ago do not appear to be applying for places on the one-day ILS course as a means of refresher training. Half day refresher courses may be a more attractive option given the constraints on releasing staff for training.

Conclusions and recommendations

This report highlights the success of ILS training in a primary care setting but the reader should note that the study was run in only one region of the country by a single team of instructors. There may therefore be questions about the transferability of processes and replication of these results. The study was also only able to identify skills in a simulated scenario. Recent work by Murphy and Fitzsimons (2004) suggests that ILS training alone may be insufficient for effective clinical resuscitation performance. In addition the continuous assessment of skills and the high achievement of participants raises questions about the level of skill increase and decline based on this rating procedure. Never the less from our other findings it does appear likely that skill does increase, and from previous reports that it does decline significantly. Bearing these points in mind and noting the comprehensive nature of this evaluation we have come to the following conclusions and recommendations:

- The primary care based ILS course is well run with participants leaving with increased confidence and competence and feeling more able to deal with a cardiac arrest situation in the workplace.
- Overall the ILS course leads to a significant increase in skills and knowledge gain and retention. It has added value over in-house BLS courses as preparation (in the form of a course manual) is better, and knowledge and skill retention is greater.
- Some participants do not have an increase in knowledge which may be related to fatigue or learning styles. The Resuscitation Council (UK) and faculties should consider offering the course over two days where applicable.
- Requirements for ILS need to be considered by individual departments with appropriate allocation of staff. Students should be encouraged to be fully conversant with the manual prior to attendance.
- The multi-professional approach with a primary care focus should be retained.
- Consideration of the administrative burden of the course must be acknowledged and supported appropriately.
- The core curriculum should remain unchanged as there is a reported impact on clinical performance.
- Assessment approaches need reviewing by individual faculties to ensure consistency in judgement.
- The assessment philosophy and guidance need to be made explicit by the Resuscitation Council (UK) clarifying the nature of the course, attendance only or pass/fail.
- Updates are essential and should be considered in-house at regular quarterly intervals. Consideration could be given to combining ILS refresher training with ALERT refresher training in a one day annual package.
- ILS steering groups should raise awareness of the ILS course at an appropriate level within the organisation to ensure that its usefulness is recognised and fully exploited.
- Funding needs to be addressed in relation to a focussed 'most need to know' basis and should be consistently allocated by health authorities.

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Appendix A

Immediate Life Support Course Evaluation

Title:	Immediate Life Support (ILS)	Dates:	
Venue:		Director:	

Using the following scales please circle the number which represents your feelings about this course.

		Comments
Did the ILS Manual help you prepare for the course?	Not at all 1 2 3 4 5 Very well	
Did the course meet your objectives?	Not at all 1 2 3 4 5 Very well	
How much did you enjoy the course?	Not at all 1 2 3 4 5 Very much	
To what degree was the subject relevant to your current practice?	Not at all 1 2 3 4 5 Very much	
The overall quality of the Lecturers?	Unsatisfactory 1 2 3 4 5 Excellent	
The quality of the equipment (audio-visual & clinical skills)?	Unsatisfactory 1 2 3 4 5 Excellent	
The quality of the venue?	Unsatisfactory 1 2 3 4 5 Excellent	

Please turn over

What aspects of the course did you feel were of most benefit to you?

What aspects were of least benefit?

What could be included to improve the course?

How will your professional practice be influenced by what you have learnt from this course?

Please evaluate the following sessions; Using the following scale, please circle the number which represents your feelings about this course.							
		Unsatisfactory	1 2 3 4 5	Excellent			
Session/lecture	Speaker	Rating			Comments		
Introduction		1	2	3	4	5	
Lecture: Recognising the sick patient & preventing cardiac arrest		1	2	3	4	5	
Skill Station 1: Principles of Basic Life Support		1	2	3	4	5	
Lecture: Introduction to cardiac arrest rhythms		1	2	3	4	5	
Skill Stations 2: Basic airway, ventilation +/- LMA/Combitube (optional)		1	2	3	4	5	
Monitoring, Cardiac Arrest Rhythms & Defibrillation		1	2	3	4	5	
Lecture: The universal algorithm		1	2	3	4	5	
CASDemo & introduction to CASTeach		1	2	3	4	5	
Skill Stations 3: CASTeach		1	2	3	4	5	

What is your overall rating for the course?

1	2	3	4	5	6	7	8	9	10
Poor		Below Average		Average		Good		Excellent	

Please feel free to make any additional comments.

Thank you for taking the time and trouble to complete this questionnaire. It will help us to enhance and maintain the quality of education we provide.

Your name (optional)

Retrospective Immediate Life Support Course Evaluation (2)

To be completed three months after course completion

Title:	Immediate Life Support	Dates:	
Venue:		Director:	

Do you feel that the theoretical knowledge gained from this module is meeting your needs? If no, what could also be included in future modules?

Have you found that the practical skills gained from the module are meeting your needs?

If no, what could be included in future modules?

How would you describe the impact of your recent learning on patient care?

Would you recommend others to this module?

If not, why not?

Thank you for taking the time and trouble to complete this questionnaire.

Your name (optional)

Appendix B Evaluation – Primary Skill Assessment

Candidate full name -----

Assessor name -----

Date -----

*Please see Resuscitation Council assessment sheets for full description of process and outcome measures

Structure Skill description*	Assessment (please tick)	
	Achieved	Not achieved

Basic Life Support

- Check the environment
- Check for response
- Call for help
- Assess airway
- Combined check for breathing and circulation
- Artificial ventilation (pocket mask)
- Cardiac compression

Airway Management

- Checking of equipment prior to skill performance
- Airway maintenance (oropharyngeal airways)
- Artificial ventilation (bag valve mask/with oxygen)
- Securing airway (LMA with bag/valve device)
- Protocol management (ventilation/compression rate and ratio)

Defibrillation (if trained within the last 12 months)

- Establishes cardiac monitoring
- Assessment of the patient's cardiac rhythm
- Preparation for delivery of shock
- Delivery of shock (as indicated by AED)
 - Repeated delivery of shock (as indicated by AED)
- CPR recommenced

APPENDIX C

Version Number: 2

Date 9/7/04

Cardiopulmonary Resuscitation Multiple Choice Questionnaire

Name

(NOTE: There is only one correct answer per question. Please ring as appropriate)

1. **When performing external chest compression on an adult, the sternum should be depressed?**
 - a) 0.5 to 1cm.
 - b) 2 to 4cm.
 - c) 3 to 5cm.
 - d) 4 to 5cm.

2. **The following organisms have been shown to be transmitted from patient to rescuer during resuscitation?**
 - a) Tuberculosis
 - b) Human Immunodeficiency Virus.
 - c) Hepatitis B.
 - d) Carcinoma of the tongue.

3. **A substantial impact on survival from pre-hospital cardiac arrest can be achieved in a community when?**
 - a) Lay persons are trained in CPR.
 - b) Rapidly responding basic rescuer units are available within 4 minutes.
 - c) Advanced life support is available within 8 minutes.
 - d) All of the above.

4. **When performing CPR on an adult, the compression rate is?**
 - a) 80 times a minute.
 - b) 100 times a minute.
 - c) 115 times a minute.
 - d) 140 times a minute.

5. **In which of the following situations should the rescuer perform CPR for one minute prior to going for help?**
 - a) Drowning, trauma and the elderly
 - b) Trauma and children < 10
 - c) Neck injuries and drowning
 - d) Drowning, trauma and children < 8 years.

6. **The most common cause of airway obstruction in an unconscious victim is?**
 - a) Food.
 - b) The divers reflex.
 - c) Dentures.
 - d) Tongue.

7. **In an adult who has had a respiratory arrest only the correct rate of rescue breathing is?**
- a) 4-8 times a minute.
 - b) 10-12 times a minute.
 - c) 14-16 times a minute.
 - d) 18-20 times a minute.
8. **If the rescuer's efforts to perform rescue breathing do not result in the victim's chest rising, the rescuer should first?**
- a) Re-position the head tilt.
 - b) Perform four back blows.
 - c) Perform four manual thrusts.
 - d) Put the patient in the recovery position.
9. **During single rescuer CPR, how often should a rescuer palpate the carotid pulse to check for return of spontaneous circulation?**
- a) After the first minute of CPR and every few minutes thereafter.
 - b) After the first five minutes of CPR and every five minutes thereafter.
 - c) Every ten minutes unless the casualty vomits.
 - d) CPR should never be interrupted unless the casualty makes a movement or takes a spontaneous breath.
10. **When the rescuer is alone with a cardiac arrest victim, but with a telephone nearby, the rescuer should?**
- a) Telephone for help after the airway and breathing assessment.
 - b) Do nothing and wait for help to arrive.
 - c) Open the victim's airway and telephone for help.
 - d) Perform CPR for one minute and then telephone for help.
11. **In Basic Life Support?**
- a) The correct ratio is 2 ventilations to 15 compressions
 - b) The carotid pulse should normally be palpated for 20 seconds
 - c) The hands should be placed over the middle of the sternum to perform cardiac massage.
 - d) If the casualty is not breathing but a pulse is present, 15 ventilations should be performed
12. **A casualty has fallen 20 feet, whilst climbing a tree, he has landed on his head. You suspect a neck injury. He is not breathing but has a good carotid pulse. You should first?**
- a) Ventilate twice and do 15 compressions
 - b) Ventilate 10 times having done a chin lift head tilt.
 - c) Turn into the recovery position and go for help.
 - d) Do a jaw thrust to open the airway, then commence ventilation.

The End

Appendix D Demographics and Previous Training Log

Date of ILS course attended	
Name	
Sex	M / F <i>(Please delete as appropriate)</i>
Age group (in years)	<i>(please circle as appropriate)</i> = 20 or less 21-30 31-40 41-50 51-60 61-70
Profession (e.g. Dr/Nurse/Physio/OT)	
Place of work <i>(e.g. which ward or general practice)</i>	Speciality <i>(e.g. general medicine/general practice etc)</i>
How many years have you worked as a health care practitioner?	
Previous training? Have you been trained in the following and if so when?	
BLS	Y / N <i>(Please delete as appropriate)</i> If yes how long ago? Years = Months =
Airway management	Y / N <i>(Please delete as appropriate)</i> If yes how long ago? Years = Months =
Defibrillation	Y / N <i>(Please delete as appropriate)</i> If yes how long ago? Years = Months =
How many resuscitation attempts have you been involved in?	Over the last year = Over the last 5 years =

Appendix E Focus Group Topic Guides ILS Line Managers' Focus Group – Topic Guide

Introduction

Purpose of the meeting – to ascertain participants' views on the primary care based ILS course. The participants will have been on the course and sent staff on the course. Explain the focus group will be tape recorded.

Positive and Negative aspects of the course – general views

What did you like about the course?

What did you dislike about the course?

Staff Training

How does the ILS course fit into your staff training programme?

Do you think the ILS course is suitable for all grades of staff?

Was it easy to send your staff on the course? (Placement availability/staff cover etc).

Skills and Knowledge Gain and Retention

(First define skills and knowledge).

What skills do you think your staff have gained from the ILS course?

How long do you think they will retain these skills for?

What knowledge do you think your staff have gained from the ILS course?

How long do you think they will retain this knowledge?

Do you think the skills and knowledge gain from a community ILS course is any different from a DGH ILS course?

Impact on practice

What has the impact of your (and your staff) attendance at the ILS course been on your (staff) practice?

Would you continue to send staff on a community ILS course in preference to an ILS course run in a DGH?

Appendix F: Comments from ILS Course Evaluation

Did the ILS manual help you prepare for the course?

Tiverton: 14/10/04

Very comprehensive
Only had time to quickly scan through
Too much reading
Delivered aims and objectives
I wish I had read it more
Wish I had read it
Didn't know I was on the course until the night before
Well set out, easy to read.
I did read it properly beforehand (score 2)

Barnstaple: 23/03/05

Didn't notice instructions to read fully in advance, so bit rushed
I should have read it more thoroughly
Not familiar with a lot of the medical terms

Torbay: 30/11/04

Helped everything come into place on the day
Easy to read and understand
Easy to understand. Very readable.
Didn't have time to read thoroughly as only found out I was on course 2 days ago!!
Excellent

Torbay: 25/01/05

Too much medical jargon
Manual well set out, easy to follow

Torbay: 15/04/05

Should have read more carefully
Large print very good. Easier on eye. Well presented
Enjoyed reading through it and I will read it again
To be honest, did not read it all – but I will!

Plymouth: 11/11/04

I only received the manual a few days before the course. Longer would have helped.
Easily readable
Didn't realise how long it would take to read.
Easy to read and understand
Didn't receive one until the day of the course
Very clear and easy to understand
LMA and airway management are better understood with hands-on exposure
The manual was very good, well written.
Although a lot to take in
Although I only got through ¾!

Plymouth: 01/03/05

Received late and didn't have enough time
Work better visually
Section on drugs very intense
Lectures made clearer

Did the ILS manual help you prepare for the course?

Bodmin: 01/12/04

Well laid out manual

Not applicable – was off sick, didn't go to office before course to pick it up

Lot to take in

Easily understood and useful to refer back to

Bodmin: 02/02/05

Well set out, understandable

A programme of the day would be useful

Too in depth, there was a lot I didn't understand until after the course

Bodmin: 20/04/05

The terminology is not easy to understand and not explained well in the manual

Very well organised, easy to understand

Did the course meet your objectives?

Tiverton: 14/10/04

Clear, concise teaching and instructions. Good programme. Easy environment to be in
Although very nervous, the lecturers took this into consideration.

Clear concise teaching and instructions. Good programme.

Although not so keen on test first thing! (score 5)

Torbay: 30/11/04

Working in community setting, I found this very useful

Fully

Torbay: 25/01/05

I was not disappointed

Yes

Plymouth: 11/11/04

Much better all in one day rather than a half day

Good refresher on last year

Helped to realise what I did know.

Bodmin: 01/12/04

Interesting and informative

Yes

Bodmin: 02/02/05

More than I expected excellent

How much did you enjoy the course?

Tiverton: 14/10/04

Although very nervous, the lecturers took this into consideration (score 5)

Although not so keen on test first thing! (score 5)

Barnstaple: 23/03/05

Very interesting, well led, good mix of backgrounds of participants

Torbay: 30/11/04

Good combination of lectures / skills stations

Torbay: 25/01/05

Excellent

Interactive time to ask questions

Torbay: 15/04/05

It was brilliant

Plymouth: 11/11/04

Felt a little more confident at the end of the day

Very informative in an enjoyable and memorable way

Very much - improved confidence

Though anxious at scenarios

Good to vary from lecture to activity

Bodmin: 01/12/04

Score of 5, apart from being a nervous wreck

Very enjoyable

A very relaxed but informative day

Bodmin: 02/02/05

Although relevant, the theory was the least enjoyable part

Bodmin: 20/04/05

The practical sessions were extremely valuable to my practice

To what degree was the subject relevant to your current practice?

Tiverton: 14/10/04

It is very relevant

Torbay: 30/11/04

Very relevant

Feel much more confident now

Torbay: 25/01/05

The majority was relevant

Very much for ward collapse

As a senior nurse I feel much more confident

Torbay: 15/04/05

Work in community. Most patients for active resus

Much needed

Plymouth: 11/11/04

Very relevant to practice

Plymouth; 01/03/05

Not yet but in psychiatry is rare

Bodmin: 01/12/04

More as a BLS trainer

Bodmin: 02/02/05

Cardiac rehab physio – more than

Bodmin: 20/04/05

Have changed jobs since applying for the course to district nursing, but still help with COPD and cardiac rehab groups

The overall quality of the lecturers

Barnstaple: 23/03/05

All very good

Torbay: 30/11/04

Very approachable, with good interaction with students

Torbay: 25/01/05

Very good. At the right level.

Excellent

Plymouth: 11/11/04

The session on algorithm was post lunch in a warm environment

Enjoyable and very informative

All very knowledgeable lecturers

First class

Perfect – all lecturers were excellent

Obviously very experienced

To the point

Plymouth: 01/03/05

Enthusiastic trainers

The quality of the equipment (audio-visual and clinical skills)

Tiverton: 14/10/04

Good to use the same defib as in our workplace
Needed more manikins to practise on to avoid waiting

Torbay: 25/01/05

Makes me jealous of the facilities
Good

Torbay: 15/04/05

Enough manikins, good lecture facility

Bodmin: 02/02/05

Not enough manikins for scenarios

The quality of the venue

Tiverton: 14/10/04

Easy environment to be in.
Only problem lack of cold drinks. Tea and coffee excellent.

Barnstaple: 23/03/05

Map was good, managed to avoid town centre! Coffee was awful though!!

Torbay: 25/01/05

Makes me jealous of the facilities
Very cold
Cold
Excellent
Room was a bit cold

Torbay: 15/04/05

Good food. Enough fluids

Plymouth: 11/11/04

Excellent food!
Excellent venue, excellent food.
Very good, plenty of room, warm today.
Too hot!

Plymouth: 01/03/05

Cold
Good but quite cold at times
Bit cold

Bodmin: 01/12/04

Score 1 - Nice food though!
Not enough rooms
The room where we shared airway management was far too noisy
Environment in poor state
Distracting at times having two skills stations in the same room
2 classes in one room

Bodmin: 02/02/05

Food was very good

Bodmin: 20/04/05

(Score 3) But the food was nice

What aspects of the course did you feel were of most benefit to you?

Tiverton: 14/10/04

Practical demonstrations

All aspects

Use of defib (Life Pack 9) and insertion of airways – now would feel confident in both areas. Especially important now with no out of hours cover.

All of it – would like to have had more chance to use AED Heartstream as well as Life Pack 9 defib as appropriate to workplace.

The scenarios with Simon were excellent and he was very supportive. Took time to explain. BLS, defib use.

LMA, importance of BLS, algorithm

All of it but especially airway management

Practise with airways, defib, cardiac rhythms.

All of it

All practical demonstrations and practise

Everything but drug therapy

All of it, some was a refresher and others I learnt.

BLS recap, CAS Teach sessions

All

Barnstaple: 23/03/05

All of it

Practical scenarios

Becoming familiar with the advisory defib machines

It was all very relevant

Practical hands on sessions – BLS and defib

Update on BLS and use of AED

Skill station using defib

All very good to improve knowledge – ECG readings and defib

Airway management and arrest management

Going over the practical aspects in the skills stations

More understanding of heart rhythms

Use of nasal airways and LMAs

Defib, refresh BLS

BLS and defib

Casteach, airway management

Refreshing BLS, airway management and defib

Universal algorithm and using AED

Familiarisation with defib machines

All of it

Practical

Torbay: 30/11/04

All beneficial

The use of airways, defibrillation and drugs used in cardiac arrest

Everything, it completely refreshed my memory

Practise with new Defib, drugs update, LMA airways, nasopharyngeal airways practise.

Scenarios were very useful. Non-threatening learning environment was a real benefit.

All. Practical sessions.

I feel I have benefited from all aspects

The use of airways and defibrillation

All of the course content

Practical and scenarios

Monitoring cardiac arrest rhythms and Defib

All beneficial

Practical skills

Practical, relaxed atmosphere

Skill stations – BLS, basic airway and ventilation, defibrillation

Defib

A total reminder of all basic skills

All of the day

All was beneficial but particularly the rhythms

Torbay: 25/01/05

BLS, AED, airway management

The airway management and defibrillation

All of it especially airway management and CAS assessments

All aspects of the course were of benefit to me

Use of nasopharyngeal airways, LMA – never used before

Insertion of LMAs, practice of Defib, practice of team simulation

BLS – as skills rarely used, very useful to have regular updates

All

Skill stations

Practical skills, able to work in small groups. Learning about LMA lobe and pharyngeal lobe.

Airway management and Defib practice

Practical skills

Cardiac monitoring and defibrillation. Introduced us to new Defib equipment that we will be using.

(All of it) x 2

Torbay: 15/04/05

Looking at ECG patterns

Use of the defib

Insertion of nasopharyngeal, oral pharyngeal airway and LMA and sizing. Defib

Opportunities to practice in non-threatening environment

Airway management, introduction to the use of new equipment and the rationale behind its use

All aspects

Defib, identifying rhythms, use of LMAs

All but particularly use of nasopharyngeal and LMA tubes and practising insertion.

Administering drugs, universal algorithm, using AED

Putting theory into practice

The complete update of using defib, also the use of airway maintenance

It was good not to be rushed or being called away from lecture like on the wards

Skills station: identifying rhythms, use of LMAs nasopharyngeal

Plymouth: 11/11/04

Practical stations, CAS demo

Cardiac arrhythmias, ABCDE assessment, practical sessions.

This is the second ILS course I have participated in. This course was far more relaxed and less threatening than my previous course at Derriford. It developed confidence in my ability to use LMAs.

All extremely relevant

Going over the use of the Defib machine. If you don't use them regularly you tend to forget.

Recognising sick patient lecture and refreshing myself of BLS and defibrillating. The final session was excellent.

Being able to recap and practise skills. Learning new skills – defibrillation and drugs.

Background info – especially what to do if patients condition deteriorates to prevent arrest.

Information given in easy to remember sequences – ABC etc – MONA- which will hopefully come back in a crisis.

I felt the course as a whole will benefit me in my work

Scenarios, this is an area I try to stay away from.

Use of defibrillator and AED, also the CAS teaching was extremely useful. I feel more time could have been spent on the CAS scenarios.

The use of drugs and the universal algorithm

Defibrillation, airway management, basic life support

All aspects were beneficial

Group work in an unthreatening, helpful way.

Positive feedback from staff.

All of it

The scenarios and doing hands-on practical action

All of it. Role play.

Improving self confidence

Airway management

Plymouth: 01/03/05

Drugs and Algorithms – New defibs – due to changes since ALS 6 yr ago

Practising skills, revision

Advancement of knowledge and skills

Defib training and airway management

The principles of BLS and ventilating a patient. Also having a basic insight to CA and rhythms

Use of airway adjuncts – LMA and nasopharyngeal airways. It was useful doing scenarios

Defib training/use. Jaw thrust. BLS, leading an arrest team.

All

All

Practical sessions and discussion of causes and treatment options

Defib

All is of benefit, you never know when you need to use the skills so regular updates an advantage

Learning how to use the defib and recognising the various rhythms

BLS, raised awareness of current equipment available, practical experience, review of possible different scenarios, enjoyed working as a team of mixed disciplines, plenty of “hands-on” experience.

Practice in airway management and defib

BLS, rhythms, basic airway and ventilation

Both theory and practice interwove very well

Bodmin: 01/12/04

All

Refresh defib and airways

All relevant – good refresher

Basic life support and defib

Defib and ECG recognition

Airway management, BLS refresher

All aspects but especially defibrillation. As a BLS trainer it was good to go further into detail.

ALS skills

Airway management and defibrillation

Revising BLS – most likely to be what I need

Refreshing memory, practice of skills

Hands on clinical assessment and treatment

All of it

Defib practice

All aspects. Cardiac arrests are thankfully an infrequent occurrence on my ward and because of this I feel a lack of confidence in dealing with this situation. This has renewed my skills and knowledge and updated me on current practice.

All aspects of the course were of most benefit

I enjoyed the whole day

Bodmin: 02/02/05

Defibrillation

Case scenarios

Every aspect –scenarios helped to bring it together in the end

ECG reading

Rhythm recognition, drug therapy and CAS sessions

All of it – hands on experience good

All

Basic life support, defibrillation and airway management. As a mental health nurse this is what I would use to maintain the client until help arrived.

Correct AED usage and airway management

Learning airways technique, much of which was new to me

Drugs/defib

All of it

Use of various airways

All aspects

All

Airway management, cardiac rhythms

Bodmin: 20/04/05

The practical stuff, scenarios

All of it

Rhythm recognition and defib – skill station, CASTeach

All aspects

All

CAS- working as team and reinforcing current skills

All aspects

Defib and rhythms

Skills sessions

All of it, especially airway management and defib as I have never touched on this before

The practical

Refreshment of BLS and then defib and airway management

The practical

BLS and monitors

The practical, airway adjuncts, defib, good to have small groups – very workable

BLS consolidation, defib and airway management

What aspects were of least benefit?

Tiverton: 14/10/04

None
The rhythms, my first time ever,
None
None
Drug therapy, no input required within my role
Universal algorithm
Nil

Barnstaple: 23/03/05

Role play – I find it better to talk through things rather than act it out
None
Some of the IV drug administration
None
Defibrillation
Analysis of cardiac rhythms
I found it all most interesting, however, I won't be administering drugs
Information on drug use during CPR
All very beneficial
Analysing ECG rhythms
?
All were beneficial
Mixing of jobs – people knew different amounts
Drugs – not familiar with

Torbay: 30/11/04

None
Probably BLS as I attend regular refresher sessions
None
It was all relevant
Moving from building to building.
None
None
None, all topics interesting
All beneficial
None really
All of benefit
None, all were relevant and useful
It was all beneficial
Nothing

Torbay: 25/01/05

None, all very good
All useful – good to refresh on skills
(None) x 4
Use of medication
All of benefit
Use of medication

Torbay: 15/04/05

All beneficial, met my expectations
All was relevant
None
None
None really
None
All of benefit
All of equal benefit
Everything was beneficial

Plymouth: 11/11/04

Nothing was irrelevant

None

None. All beneficial

All of benefit but perhaps the drugs or ECG reading

All beneficial

None

The BLS – only because I am relatively well versed on it.

Drugs

Drugs – very interesting but would be dictated by doctors so not going to get too worried about this

None

None

Plymouth: 01/03/05

Discussion of drug doses Nil

Nil

None

None

None

None

All benefited

Drugs and delivery – not IV trained

BLS – simply because I'd only just done it in first aid in workplace

I found all the course beneficial to me

Medication. Practical aspects of being alone at scene/roadside resuscitation

I think they were all important

Bodmin: 01/12/04

N/R

Drugs

Drugs

The time on algorithm seemed very rushed. Perhaps would have been better if I had RTFM

Not enough role play

Nothing

None

Bodmin: 02/2/05

None

N/A

All were of benefit, am familiar with BLS but update always good

Knowing the causes and drugs as that is not something I'd deal with, I would just support until help came.

Drug administration

All was relevant except MGT (on outreach team) not relevant at all to my practice

BLS

None

None, just so much good info packed into day

Bodmin: 20/04/05

Medications – because I do not have access to drugs in the resus setting

Drug management

All aspects of great benefit

I don't feel that there were any

All were beneficial

Drug awareness, as unable to administer anything other than epinephrine and atropine

All beneficial

None

All aspects beneficial

None

BLS training – ONLY because I am a BLS trainer – very well taught though

All useful to recap

What could be included to improve the course?

Tiverton: 14/10/04

More discussions on difficulties in community settings (ie. no resus teams etc).
Perhaps a little more with drugs
Learning the rhythms firstly.
Don't know
It is a very full day as it is
Some pre-course warning re the test will reduce anxiety levels

Barnstaple: 23/03/05

Nothing, I think it is just about right, although, I do think it is a very long day
All fine
Nothing – I don't think
It would be great to practice pulse taking, RR and BP and general obs also
Can't think of anything

Torbay: 30/11/04

I don't think any more needed to be included – “an excellent day” (did not fall asleep)
Nothing that I can think of
Nothing that I can think of
Drug recognition – what and when
Improved seating at lunch!
All under one roof!
Nothing that I can think of.
Nothing
GP involvement as nurses – ie. Regular training.
Nothing really
Not sure – it was all good
Film of scenario

Torbay: 25/01/05

All good – hard to think of something else to add!!
Nothing
Worksheets, question sheets for each lecture to apply, learn and test understanding.
Heating would be nice.
Reduced time if did not have to undertake original assessment of course research (understand why)
Nothing

Torbay: 15/04/05

Keeping us alert when course has finished!
Maybe a video of an incident
More on drugs
Could be longer
Can't think of anything relevant that would improve this course
Less on BLS ?children
None
It met my expectations

Plymouth: 11/11/04

More realistic practical situations, eg. Hospital beds / full bodies etc., practice cannulation (Nothing) x 2

Although like most of the participants I felt very self conscious during the scenarios, it would have been helpful to have spent more time on them.

Can't think of anything

All aspects were covered but would have liked more time to practise and assimilate facts at a less rushed pace.

It would be nice if the course could be spread over two days but this would obviously cost a lot of money. ALERT training could be combined with ILS

Would like longer – maybe 2 days

Increase the time spent on defibrillation and CAS scenarios

First alert part of the course ought to be mandatory as part of this study day

Nothing. Any more in one session would be too much.

Approved of it as it is.

Plymouth: 01/03/05

More practise of scenarios

More scenarios

Nothing

Cannulation

Having more than one defib machine to decrease the waiting time between each group.

Regular update sessions

Regular updates on defib

More discussion on how the drugs affect the heart in CA

Small group numbers allow plenty of practical experience

If time permits, videoing of own practice with feedback leading to improved performance

More practice and more practice with awareness with drugs

Bodmin: 01/12/04

Nil

? Very thorough

Very little

Venue and not sharing a lecture room with another group

Better organisation – often confusion about who was when/where.

It's fine

A room for each session (ie. Not a shared room with two separate lots of teaching)

More roleplay

Venue – sharing mentor groups

Environment in poor state

Not sharing the room with another group

Bodmin: 02/02/05

Nothing

Biscuits at coffee time

More CAS – team working/scenarios

More in depth explanation of terminology (psych)

Don't know

More coffee breaks!!(Joke)

Better manakins

Nothing

More practice scenarios

Bodmin: 20/04/05

Can't think of anything

Scenarios with equipment that is only available on our wards and clinical setting

All topics covered were relevant to the day

All good

Unsure

It could aim not only at “general medicine and practice” but at those from other settings. It shouldn't be presumed that everyone knows terminology or even different illnesses or symptoms

All content excellent

More understanding of words as I am not general trained

Slightly rushed

How will your professional practice be influenced by what you have learnt from this course?

Tiverton: 14/10/04

More confident

Feeling much more confident when confronted by a real situation

I shall feel much more confident and able to deal with a collapse

Great influence as will use all ILS skills as appropriate in MIU and also in teaching BLS updates.

This will enhance my skill in a cardiac arrest situation, especially now with no doctor support always available.

I now feel confident to tackle an emergency situation should it arise.

More confidence

More confidence in dealing with arrests and preventing arrests.

It has increased my practise and my confidence.

Improved resus skills

Confidence increased and therefore less nervous. Also better recognition of problems leading up to an arrest.

Hopefully more confident in event

Barnstaple: 23/03/05

To be able to give up to date ILS

Hopefully feel more confident if I have a CA situation

Reassured re my skills, more confident, better organised

An excellent general update/practice

Ensure CPR scenarios upheld in hospitals to ensure staff competencies

Will ensure access to AEDs wherever possible and arrange training for staff

I hopefully will be more confident in using the defib – practice makes perfect

More confidence should I come across an arrest

More confidence of BLS and me of defibrillation

Updated my skills and have a better knowledge of working with a wider team

More analysis given to situations before commencing treatment

Improved confidence about coping in an arrest situation

Purchase of an AED, placement of airways, increased confidence

Increased confidence in an arrest situation

I definitely feel competent to deliver BLS airway and defib. Felt under confident before as defib training 3 years ago- the course has met my needs therefore will influence my practice

Supporting others, more aware and confident in dealing with BLS and cardio respiratory arrest

More confident in doing BLS and the defib, have less concerns on how to use the equipment

Feel more confident in running the cardiac rehab class

How will your professional practice be influenced by what you have learnt from this course?

Torbay: 30/11/04

I am more updated, feel more confident in the basic ABC of basic life support
It will hopefully make me more efficient in an arrest situation. I will be more aware of the sequence of events to follow and be more able to direct people to assist.
Hopefully I will retain what I have been taught and put it into practice if and when required (hopefully not often)
More confident. Ability to practise in workplace with colleagues regularly
Early recognition of sick patient. Improving confidence in dealing with defibrillation. Hopefully improved patient outcome.
Improving skills and team leading
Hopefully never need to put into practice! But feel more confident.
More confidence in delivering ILS
Hopefully to pass new information to colleagues.
Hopefully help in the event of cardiac arrest
Better management of BLS/ALS
More confidence, more knowledge, knowledge learnt – being able to build on it.
Improved confidence
To see situation as a whole and be able to organise staff in advance.
Don't get much chance to be involved with resus being in elderly rehab in community but have learnt a lot that could help if the situation arises.
Much improved confidence to be able to provide ILS
Gained in confidence, feel more self-assured in managing cardiac arrest.
Will be able to attend arrests with knowledge and confidence
It should be improved
We have frequent updates of basic and Defib CPR. However, it is very good to spend the day dedicated to these skills.
More confident and more willing to undertake lead
It has increased confidence in myself

Torbay: 25/01/05

As a trainer I have benefited. Therefore, I can improve my own lessons to benefit my students
I feel more knowledgeable about life support emergency treatment/recognition. I hope my professional practice will improve with my increased confidence in this area.
Better airway management. Ability to stand back a bit.
Be able to direct a team
Motivate, improve practice in the community.
Renew current resus equipment and make sure everything works and is ready to go
It has given me much more confidence
Hopefully I will be more confident
Feel more confident, hopefully able to manage and direct a team
I hope that I would be more successful in future arrest situations
Increased confidence and ability to coordinate the team.
Dealing with a situation in a calm and professional and confident manner
Enhanced – feel more confident

Torbay: 15/04/05

Hopefully I will be a better team leader
I feel more confident to pass on what I have learnt
I will be able to update my colleagues
By enabling myself to recognise what/how to monitor patient for cardiac
Probably very little, although I may consider a paediatric course. I try to keep my skills up to date but I have not witnessed a cardiac arrest in 10 years of practice
Again, I feel more confident with my ILS, I have gained new skills today
More confident
Reusing personal professional skills and confidence relevant to my workplace
I feel more confident if needed in an arrest situation
Increased knowledge and confidence will certainly enhance professional practice
Honestly feel more confident
More confidence in defib and CPR
Now updated and competent in ILS
In the event of an arrest, I will be clear, concise and assertive if I am "leader"

How will your professional practice be influenced by what you have learnt from this course?

Plymouth: 11/11/04

More confident in approaching emergency situations

I will keep updated on BLS and observe equipment on the ward and practice with setting up defibrillation more often as a practice.

I hope that I will be more confident and competent in arrest situations.

Gained confidence, more aware of situations.

It will be helped a great deal since we do not always have doctor cover where I work. It will give me more confidence to lead a team.

I will be able to deal with cardiac arrest situations and the run up to the patient arresting with more confidence and knowledge and will be more aware of thinking about causes and reversible causes.

Hopefully I would be equipped to lead an arrest and feel more confident if left in that position.

This course has increased my existing knowledge, I will read the course manual to reinforce what I have learnt today.

Improved confidence in my own abilities, improved competence

Made me more confident. Better handling of pre-arrest and arrest situations. Better team work.

More confident to carry out BLS and ALS

I now feel more confident in BLS / ILS

Ability to lead a team rather than being led.

ALERT and ILS fit very well together. More equipped to do job. When attending cardiac arrest feel more confident to assist or take lead.

Feel more confident in assessing patients at risk

Feel more confident in cardiac arrest situations

I feel more confident regarding issues surrounding BLS

Plymouth: 01/03/05

Confidence in dealing with emergency situations – understanding of role of team working in emergencies

More confident when working alone (community responder)

Able to pass airways, give high dose oxygen, use AED

Have more confidence if an emergency was to occur on the ward

Be more confident in an arrest situation

By using skills learnt/relearnt on this study day.

I am a trained staff nurse and it is very important for me to have this training; doctors are not always around the area where I work

Teach them the basic technique of what you learned in this course

I hope to feel more confident if in a position of helping at an arrest scene

More confidence to deal with critical emergency situations involving those in my care, should the need arise

Hopefully better understanding of the unconscious patient and possible reasons for this. Little more confident in future 'arrest scenarios'.

I will feel more confident should I be involved in a CA. I would feel as if I could contribute to the team effort – as I have a better understanding of the ABCDE

More confident generally

Confidence to deal with CA, collapse, resuscitation and use of defibs (AED and ward equipment)

Refreshed the knowledge I had already making me more confident when dealing with the sick or collapsed patient on the ward

I will be more confident in intervening when the need comes

How will your professional practice be influenced by what you have learnt from this course?

Bodmin: 01/12/04

Be able to carry out a cardiac arrest procedure correctly and facilitating others

Updated my skills in resus.

Hope that I can recall it if ever needed

More confidence in dealing with ILS

More competent/confident if need to use these skills, Teaching colleagues

Confidence in the workplace and as a BLS trainer

Hopefully not!

Need to practise

Keeps more updated. Confidence.

Very relevant for MIU

Confidence +++

Increase competence and confidence

This will enable me to deal with a cardiac arrest situation with more confidence

Updating these skills – very important but little used

Bodmin: 02/02/05

I will feel a lot more confident and competent in delivery of BLS and defib etc

Feel more confident in the MIU

A great deal and I will share today's information with my colleagues

Updated practice – increased confidence

More confidence with resuscitation

Improved ILS

Increased confidence as shift leader – more able to direct a team in an emergency. I will be confident in the use of grab bags and defib

Radically.

Very unlikely to make any difference as I am hardly ever in the clinical situation

I feel it will be extremely beneficial as I am a minor injuries nurse

More efficient responses in cardiac arrest situations

More confidence

I will be more efficient in delivering safe levels of ILS

Greatly, hopefully more confident

More competent ILS

Bodmin: 20/04/05

I will make sure we have a selection of airways and more basic equipment available for use at rehab groups

More confidence, feel able to use a defib with confidence, cardiac rhythms, airway adjuncts – usage of

Gives confidence

More confidence to deal with these situations

Feel much more confident in commanding a team when working with only HCAs for support

A good refresher on equipment use, more confidence

More confidence and ability to deal with these difficult situations

I'll be more confident and more willing to take charge in a cardiac arrest

More confident

More confident in cardiac events and hopefully spotting patients at risk of CA before it happens and to take action to avoid this happening to them

Increased confidence

Very relevant and would be able to apply to work

It will improve my confidence when dealing with ALS situations

Feel more confident

Feel more confident when performing resus

Just a refresher on skills I already have

Session Evaluation and Comments

Introduction

Bodmin: 01/12/04

I missed this, thinking we would start at 9am

Torbay: 30/11/04

Not very clear when and where things were happening = waiting

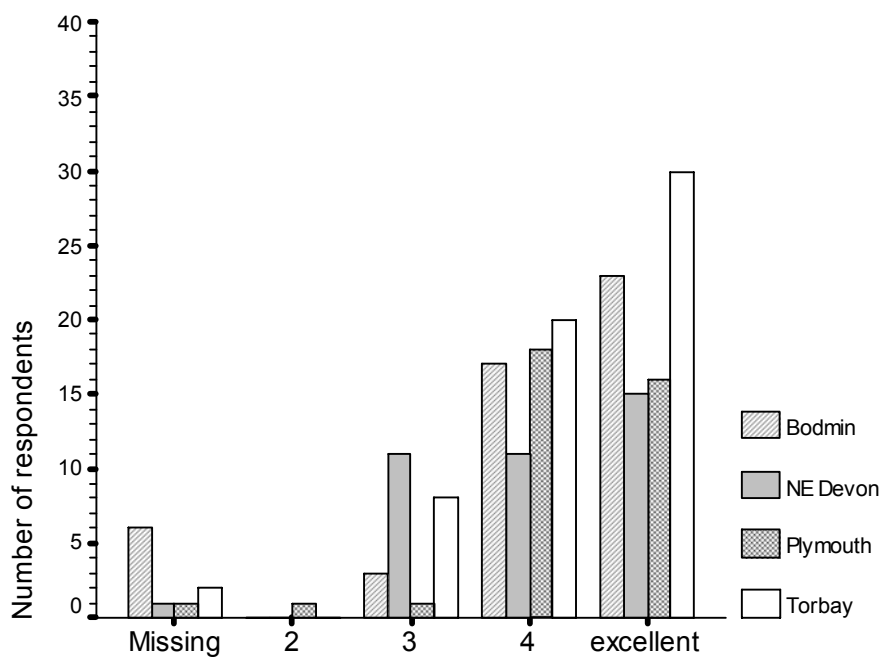
Torbay: 25/01/05

Very clear outline of the day

Clear description of schedule of the day

Torbay: 15/04/05

Clear and concise. Have done the alert course also – so helpful, with some humour also!



Introduction

Figure 4A-1 Distribution of rating scores for introduction session

Lecture - Recognising the sick patient and preventing cardiac arrest

Torbay: 30/11/04

Going over a lot of old ground

More time required – recommend ALERT course

Torbay: 25/01/05

A new subject for me so excellent.

Plymouth: 11/11/04

More time needed for this

Very interesting, would have liked more in-depth information

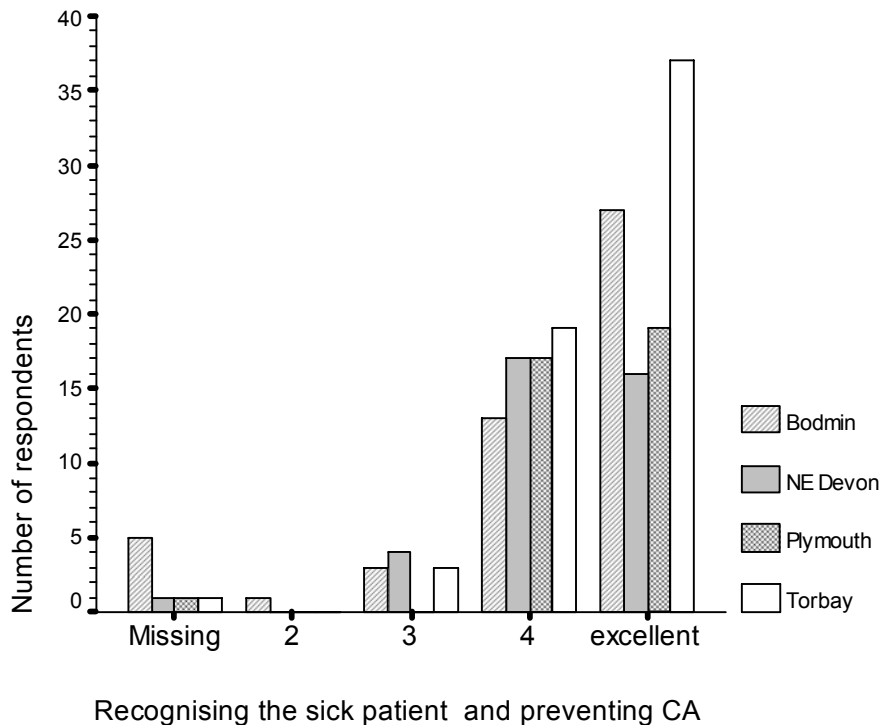


Figure 4A-2 Distribution of rating scores for “recognising the sick patient and preventing cardiac arrest” lecture.

Skill station 1 - Principles of basic life support

Torbay: 30/11/04

Size of group just right – able to ask questions.

Torbay: 25/01/05

Demonstration, time to practice and ask questions

Plymouth: 11/11/04

Very useful to update skills

Good atmosphere to understand and ask questions

Very well put over

Helped to reiterate what already knew

Tiverton: 14/10/04

I like the practical.

Barnstaple: 23/03/05

Small group – excellent opportunity to role play to fully understand

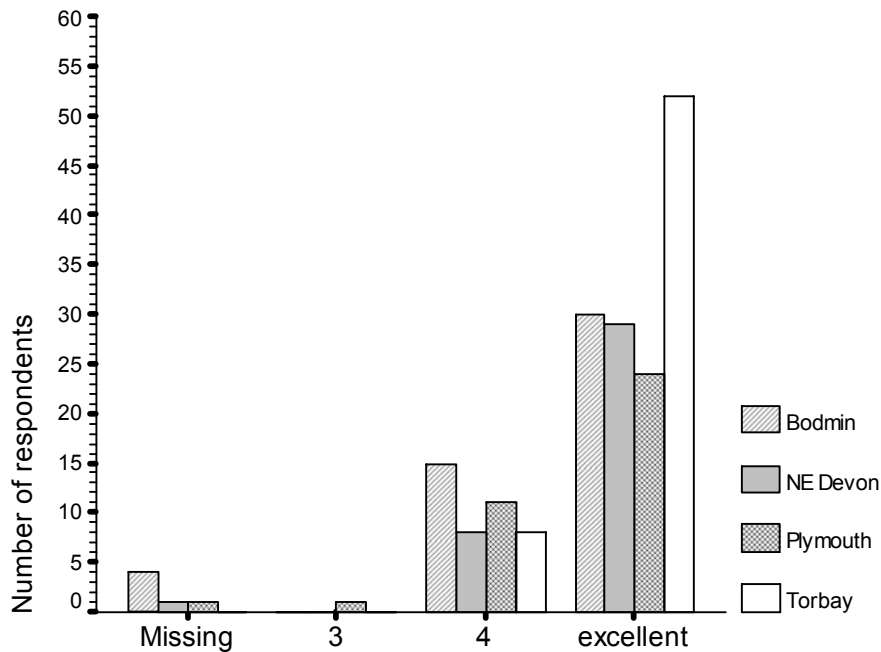
Don't enjoy role play – find it stressful

Very clearly taught

Torbay: 15/04/05

All practical situations I learn from

Very confidence building – tips to remember points were good



Skill station 1:principles of BLS

Figure 4A-3 Distribution of rating scores for Skill Station 1.

Lecture – Introduction to cardiac arrest rhythms

Tiverton: 14/10/04

Participants needed basic ECG skills prior to course
I needed to learn more about rhythms

Torbay: 30/11/04

Kept it light-hearted. Easy to listen to and understand.

Torbay: 25/01/05

Taken at a good base to absorb patterns

Plymouth: 11/11/04

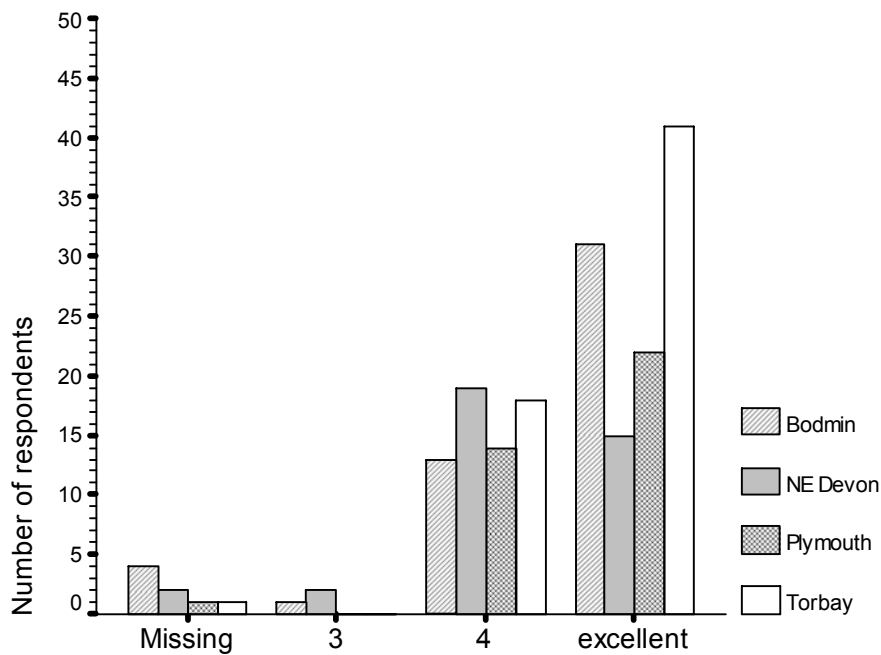
Good

Good to only show actual rhythms to be concerned about

Torbay: 15/04/05

I understood it

Need to keep practicing-clear using the book as well



Introduction to CA rhythms

Figure 4A-4 Distribution of rating scores for Introduction to Cardiac Arrest rhythms lecture

Skill station 2 – Basic airway, ventilation +/- LMA/Combitube (optional)

Tiverton: 14/10/04

Good to practise

Bodmin: 01/12/04

Couldn't hear everything

Torbay: 30/11/04

Kept it light-hearted. Easy to listen to and understand.

Torbay: 25/01/05

Excellent practice and demonstration time

Plymouth: 11/11/04

More time with LMA → 100% confident using

This felt rather rushed, would have liked longer to practice with LMA

Never seen nasopharyngeal airway or LMA. Good, informative.

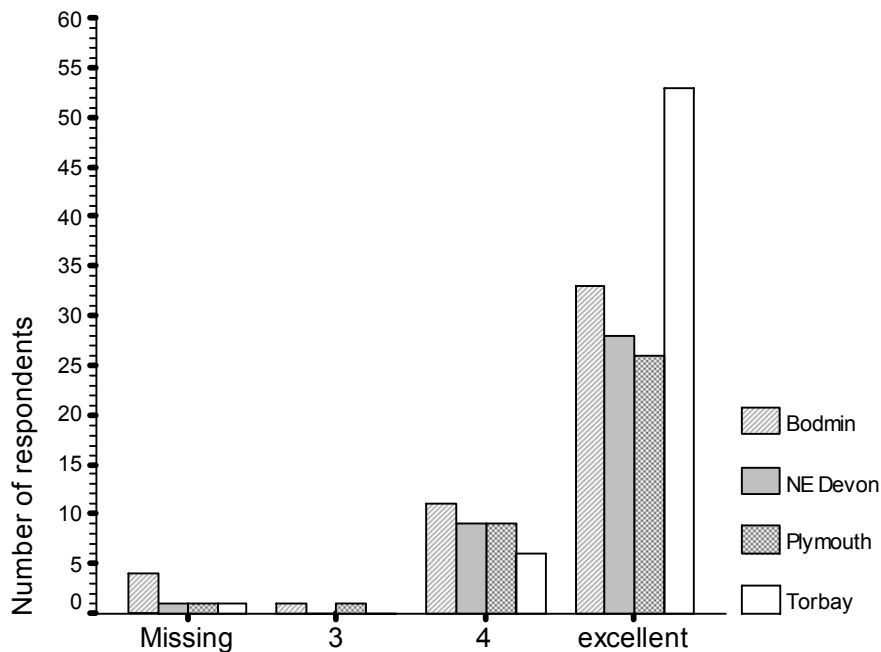
Torbay: 15/04/05

Really enjoyed – no suction practice

Now more confident

New experience with LMA

Excellent Debbie



Skill station 2:basic airway, ventilation+/- LMA

Figure 4A-5 Distribution of rating scores for Skill Station 2.

Monitoring, Cardiac arrest rhythms and defibrillation

Tiverton: 14/10/04

Would like to have been given opportunity to use 'Heartstream' and not just 'Life Pack 9', as relevant to workplace

I learnt a lot about rhythms

Torbay: 30/11/04

Kept it light-hearted. Easy to listen to and understand.

Torbay: 25/01/05

Interesting but not long enough to absorb material presented

Plymouth: 11/11/04

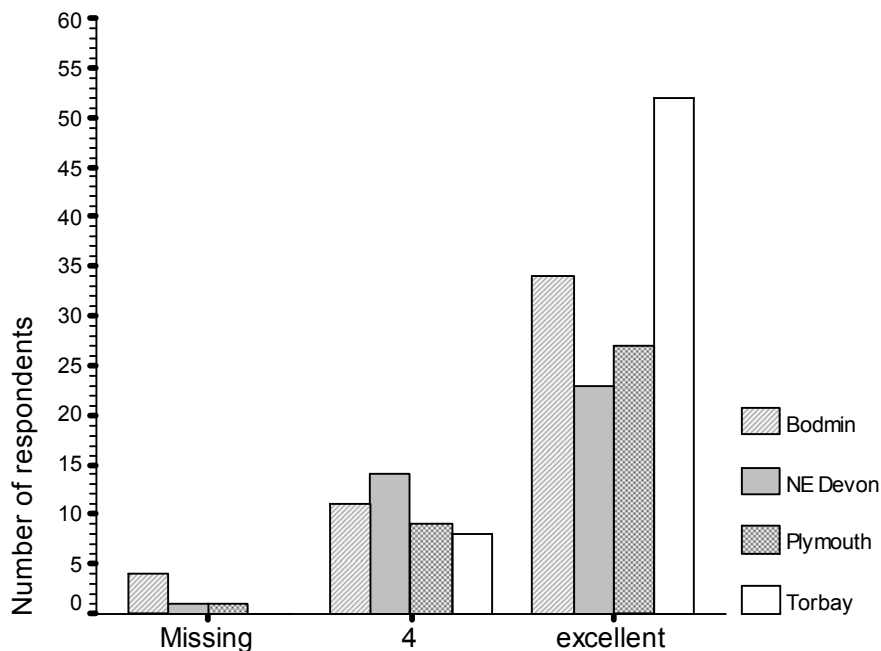
Rather rushed – need more practise

Informative

Torbay: 15/04/05

Good understanding now

Very good-made a scary subject more approachable to me, led to new skills



Monitoring,CA rhythms and defib

Figure 4A-6 Distribution of rating scores for monitoring, Cardiac Arrest rhythms and defibrillation session

Lecture – The universal algorithm

Tiverton: 14/10/04

Quite fast!

Bodmin: 01/12/04

Too rushed

Torbay: 30/11/04

Light-hearted but totally relevant. Easy to comprehend.

Torbay: 25/01/05

Again interesting but not long enough to absorb material presented

Plymouth: 11/11/04

Rather too much information

Informative

Very clear

Torbay: 15/04/05

Too much information

A bit too fast to take in

She appeared a little nervous, occasionally unsure of her facts

Always good to work through

Bodmin: 20/04/05

I did become slightly muddled – needs to be more clear about which drugs given

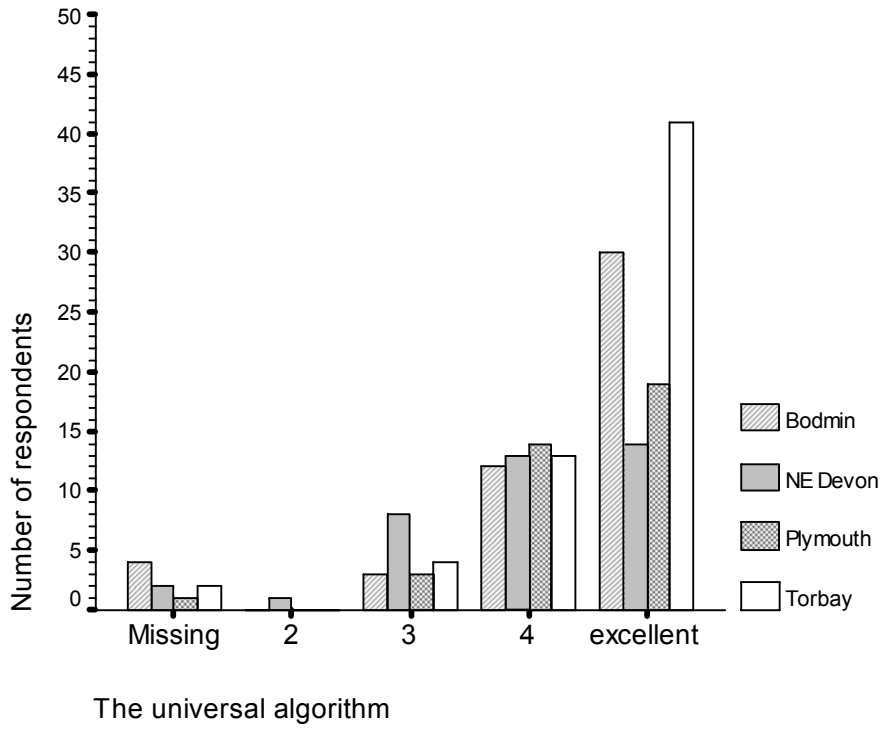


Figure 4A-7 Distribution of rating scores for the universal algorithm session

CAS demo and introduction to CASTeach

Plymouth: 11/11/04

Good to see scenario in practice

Very good

Torbay: 30/11/04

Light-hearted but realistic.

Torbay: 25/01/05

Very good

Torbay: 15/04/05

Very clear-how it should be done

Bodmin: 02/02/05

Very helpful good to put skills into practice

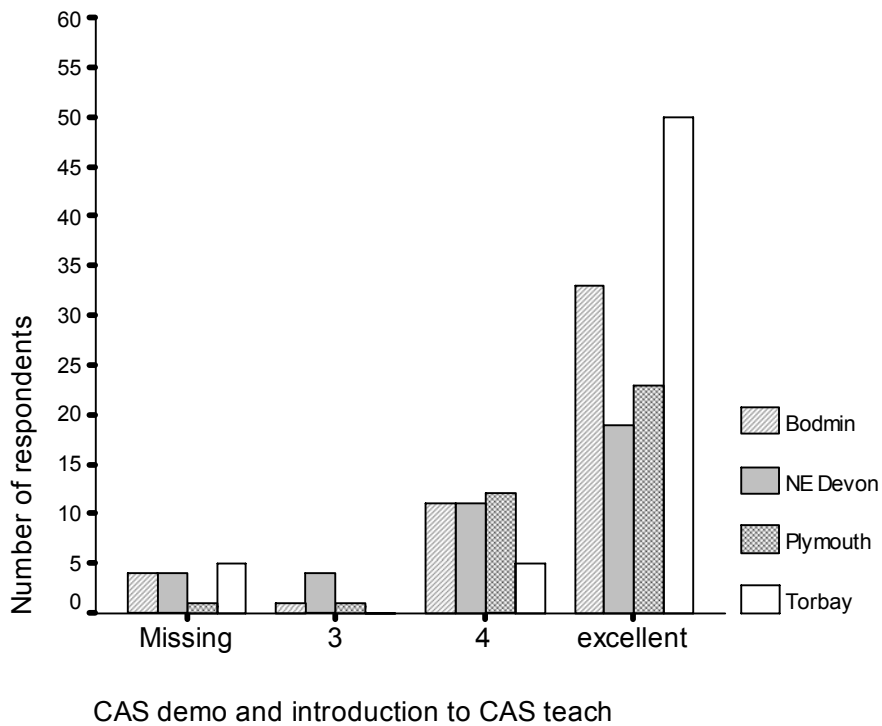


Figure 4A-8 Distribution of rating scores for CAS demonstration and introduction to CAS teaching

Skill station 3 – CASTeach

Tiverton: 14/10/04

Good to lead a team.

Good scenarios

Torbay: 30/11/04

Team worked together

Light hearted but realistic

Torbay: 25/01/05

A great way to conclude the session

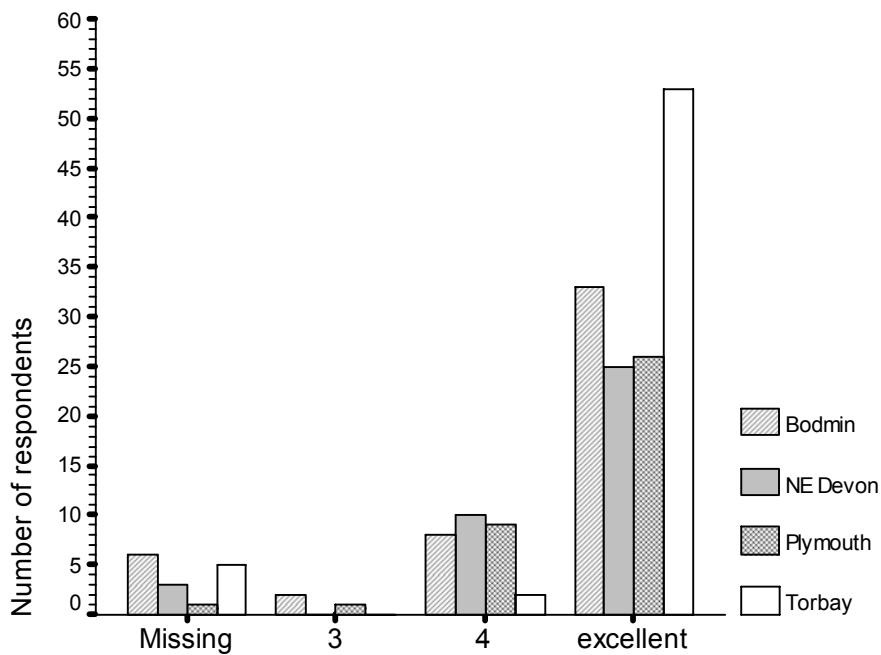
Torbay: 15/04/05

Felt quite pleased with my performance

Plymouth: 11/11/04

Excellent, made sense of day as putting all skills learnt into practice

Puts everything learnt today in working practice.



Skill station 3: CAS teach

Figure 4A-9 Distribution of rating scores for Skill Station 3.

Additional comments.

Tiverton: 14/10/04

Very well run course

The lecturers were excellent and I feel I will be able to apply these skills in a safe manner in accordance with my level of accountability.

Interesting, useful and well run.

Really good course. Well timed and managed. Good instructors. Good rationale. Thank-you.

Well organised and managed. Good info and rationale for actions. Aimed at right level of knowledge. Enjoyable day. Thanks.

Excellent course

Liked small groups to work in. Good/excellent teaching.

Barnstaple: 23/03/05

Less role play!!

Really enjoyable, well paced, numbers in groups facilitated opportunities for discussion and interaction – Debbie was an excellent instructor. The mix of lecture/activity was good – made a longish day go very quickly.

I found the course very interesting and easy to follow, scenarios – torture – but helps one to take part and learn.

Very good – many thanks.

Very enjoyable course, good balance of practical, demos and lectures. I enjoyed it, thank you.

Good fun. Very informative course. Thank you.

The research “test” exercise was an excellent tool to assess my learning outcomes and identify where my learning needs were.

It seemed quite a long day but was very beneficial.

A very well organised course. Enjoyable day – thank you.

Really enjoyed today – learned loads!!

Bodmin 1/12/04

Very enjoyable day. Thank you to you all

Very enjoyable day

A lot of information in one day

Very good

Full day was very good – I’ve really enjoyed it. Very instructive, no negative points. There is never too much hands on scenarios

Thanks for a great day. The hands on practice is always great. Having the ‘test’ sessions to start with was a surprise, but a great start and gave me a base line from which to improve

Bodmin: 02/02/05

All health care professionals should do this course – day.

The scenarios are good, but as a psych nurse, the use of drugs needs stronger definition

Well done all of you

Venue meant lots of running around

Bodmin: 20/04/05

Very good day. I found the first assessment on arrival quite traumatic, but felt that my confidence grew as the day went on

The only negative comment that I have is that the course needs to be easier to understand as it is very daunting when you join a course full of terminology that you do not know and it is difficult to speak out at times when the group is full of people that do know.

The course was very well run but for the non-medical people more explanations could have been given.

A comment was made during the introduction regarding memory recall – ie. things forgotten within 6 wks or 6 months – therefore should have a refresher every 6 months – shortened version.

Have thoroughly enjoyed the course. Feel more confident to play a part in resus.

Torbay: 30/11/04

The whole day was interesting and informative, without feeling pressurised. A good refresher – a good day

The size of the groups was just the right size, lecture on usage of drugs – what to prompt the GP with!

It is very difficult to concentrate when “tutors” keep walking in and out of lectures. Made to fit each ‘individual’ area/machine making it totally relevant. Not made to feel foolish. Positive and constructive criticism given. Excellent course especially as “designed” for community. I was thinking before that this was going to be quite a long day but I have enjoyed it and learnt and refreshed skills.

-I was apprehensive before coming but thoroughly enjoyed it. Thanks to all tutors.

- Good use of humour for a difficult subject.

Thank-you

Enjoyable day – help to reflect on own practice

Enjoyed the course, nobody made you feel stupid. It gives confidence and hopefully improved technique – only time will tell.

Torbay: 25/01/05

I found the course of great benefit to me as a trainer.

Excellent all round. Fun environment. Good food at lunchtime.

All tutors approachable, well organised and laid out. Active practicals throughout the day.

Good to meet with other community nurses in district. Suggest 3-monthly updates and practice to maintain skills.

Interactive able to practise new skills, work as small team centred for community hospital

Very comprehensive, pitched at level of understanding for all participants, lots of opportunities for involvement and practise.

I really enjoyed this course and will recommend it to my colleagues.

Torbay: 15/04/05

Excellent day – thankyou

Informative and enjoyable

Lunch was delicious – thanks!

I so needed this day rather than 20 minutes in my own unit. I now feel much more confident and competent

I feel a lot more confident to return to work- be more assertive with giving clear instructions.

Brilliant to meet staff from other PCTs

The course is packed with helpful information; however, it would be beneficial to those attending if the course was split over a 2 day period, as by the end of the day it is a case of information overload.

Very good until the lights fused!

Plymouth: 11/11/04

Supportive/fun learning environment helped facilitate learning. Intensive day but very well paced.

Very informative day. Good balance between theory and practice. Thank you.

Excellent day overall. Everything explained clearly and precise. Very constructive.

All of the sessions were excellently given. The practical sessions are a bit scary, but are necessary to apply the knowledge gained into some practise.

Thank you for a very informative and interesting day. I have learnt a lot and feel much more confident of my own practice and abilities in an emergency situation.

Honestly very difficult to comment on sessions. Everything was perfectly planned and executed. Many thanks for the lecturers (Hazel, Simon, Steve and David).

All sessions relevant and very good. A lot of info over one day- might have been better over 2.

Excellent course – increased skills in all aspects. Scenarios good and enjoyable. Did not feel threatened at all during the day. Good team work. Faculty helpful and approachable.

Mentors very positive and happy to answer questions. With not much experience in this area I would like to see this course more often than yearly

Very good course. Relaxed atmosphere. Increased my clinical skills. Would like this to be 6-12 monthly updates.

Plymouth: 01/03/05

Second ILS – would have preferred half day update using practical skills only with pre-course revision. I.e. manual for update on theory. Still not sure whether answered multiple choice correctly as should have asked more questions.

Thank you for an enjoyable day on a fearsome subject. I now feel more able to carry out my role if required to do so.

A very worthwhile course that I think all trained staff should attend. Two heads are always better than one and mistakes are less likely to happen if the same training has been given to all.

All topics are beneficial – well done!

I found the whole day much less intimidating than the manual had led me to expect.

Very good day, very worthwhile. Hopefully, I have learnt a lot.

I felt this course was excellent.

Thank you for good lunch and refreshments.

Very intensive and interesting.

Would like more practise and regular rehearsal and refreshers.

I have really enjoyed the day and learned a lot, the lecturers were very informative, friendly and supportive.