

Using Learning Agreements in a Competency-based Training Programme: Introduction and Evaluation by Preregistration Pharmacists

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This research sought to investigate the use of learning agreements between students and course organisers of a series of South Thames Hospital Pharmacist Preregistration study days. Learning agreements were negotiated at the start of the course and their perceived value assessed three months after the course by questionnaire. The introduction of the agreement was met enthusiastically by the students. As the year progressed the students became more focussed on the needs of passing the registration exam rather than reviewing their progress against agreed targets. It was felt that learning agreements would only work effectively if they were a more integrated part of the study days throughout the course. The full benefits of learning agreements as an ongoing performance management tool were generally not detected due to a lack of regular review and re-negotiation. Nevertheless, most students questioned were willing to enter into a learning agreement again.

Keywords: Learning agreements; Competency-based training programme; Evaluation; Preregistration pharmacists

INTRODUCTION

Over the past decade, learning and teaching has increasingly moved from a highly structured teacher-orientated approach to a more learner-centred and task-based approach (McGarrell, 1996). Self-directed learning refers to the outcome of teaching and learning practices that foster autonomy among learners by encouraging them to become more actively engaged in the learning process (Knowles, 1975).

Advocates of self-directed learning claim that learners who are active participants in the learning process learn and retain more, and at a more profound level than learners who follow a primary instructor-directed learning programme (Marton and Saljo, 1984; Dart and Clarke, 1991). However, learners do not typically have the

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necessary skills, knowledge, or confidence to direct their own learning without guidance. When they enter a formal educational setting they expect "the teacher to be an authority who passes knowledge on to them" (Brockett and Hiemstra, 1991). A structured framework is required that helps learners to identify their options and make appropriate selections, and that keeps them focused on meeting their needs. A learning agreement or contract could suit this purpose. This is a document drawn up by the student in consultation with their instructor specifying what and how the student will learn in a given period of time (Barlow, 1974). It indicates a commitment of both parties to the learning involved.

The term has been further defined by Anderson *et al.* (1994) as "a formal written agreement between a learner and a member of the teaching staff which details what is to be learnt, the resources and strategies available to assist in learning which will be produced as evidence of learning having occurred and how the product will be assessed".

Because of the difficulties arising out of the legalistic context of the expression "learning contract" many educators prefer to substitute "plan" or "agreement" for the term "contract". Alternatively, "study plans" or "performance agreements" and "self-development plans" are terms used. The majority of literature surrounding this field uses the terms "learning contract" or "learning agreement".

THE CONTRACTING PROCESS

The effectiveness of the learning agreement depends very much upon how it is introduced into a programme and how individual contracts are developed and assessed. Problems arise when any of the contracting parties is unsure of what is required.

Anderson and Boud (1996) identified several steps in developing a learning contract, which are summarised in Fig. 1.

Anderson and Boud (1996) found that differing degrees of learner independence could be reflected in different styles of contracting. A highly independent contract would be one, which is first proposed by the learner to the staff supervisor. The student identifies a learning need, drafts the contract, and presents it to the supervisor for approval. Negotiation may then occur over details within the contract. This is more commonly used with students in the latter stages of their course or at postgraduate level. For less experienced learners a fully negotiated contract is usually preferable. The students and supervisor work together through each section of the contract.

PRACTICAL USE OF LEARNING AGREEMENTS

Learning agreements have started to gain acceptance in many learning environments. Table I offers some examples of learning agreements in practice, and illustrates their versatility. The idea was first popularised by North American writers such as Knowles (1975) who applied the technique in the field of adult education. In Britain, they are used in higher education, particularly in connection with work-based learning or field placements.

The three-way contracts between workplace supervisor, the teaching institution and the student, have been the basis for work experience programmes in fields as diverse as history, engineering, nursing, physiotherapy, business management and information technology (specific case studies provided in Stephenson and Laycock, 1993).

Elsewhere, contracts have proven a successful learning strategy in academic courses mainly at undergraduate level (Berger and Felkey, 1987; Hardigan, 1994). Contracts may be negotiated

Step One Establish a relevant learning need

Initial discussion prior to planning any specific learning objectives is required to identify learning needs. The discussion aims to identify what the learner wants to learn, what the learner could learn, and what the learner should learn. Any perceived need must be viewed in context, in terms of the learner's experience, the level and stage of the course, the nature of the contract to be developed, and the overall assessment criteria.

Step Two Refine the learning need into specific objectives

The perceived learning needs are refined into objectives. These must be specific and realistic and achievable and related to the time and resources available.

Step Three Identify useful resources and strategies for learning

Learning resources encompasses people (teachers, other students, and practitioners) as well as material. Deciding upon a practical learning strategy is central to developing a learning contract. What is achievable in terms of contract is often determined by the availability of resources.

Step Four Determine what is to be produced

Following on from Steps Two and Three both parties negotiate what is going to be assessed and what is to be produced as evidence to enable the objectives to be met. The evidence for assessment must be specific for the type of learning and the expectations of the institution for the level of course being undertaken. This step of the learning contract needs to be carefully considered when learning objectives are first formulated.

Step Five Determine the criteria for assessment

Both parties of the learning contract agree upon appropriate quality standards for the completed work. This will vary depending on the nature of the objectives and for the stage and level of the course.

Step Six Review the learning contract

The draft of the contract proposal is reviewed. This enables parts of the contract to be revised, if required, before signing.

Step Seven Carry out the Contract

The learning contract is signed by both parties. The date for completion is agreed. The learner commences on the contract. Both parties may renegotiate any alterations to the contract during the allocated timeframe.

Step Eight Self assess and submit the work

The final assessment rests with the assessor appointed by the institute or specified in the contract. Since most contracts are criterion-referenced, incomplete work may be resubmitted after further negotiation.

FIGURE 1 Eight Steps involved in developing a learning contract (Anderson and Boud, 1996).

with individuals or with groups supervised by one person or several. They may involve a single piece of work entirely alone or in close co-operation with others. Contracts can be designed to suit the particular needs of an individual student or sponsorship organisation or they may be used within the existing programmes and linked explicitly to particular course requirements or competency outcomes.

A contract may be a minor part of the overall assessment within a single subject or it may be the sole basis of assessment for an entire course. They are also used in some business

organisations and government departments to plan staff development activities and performance appraisal reviews (Seymour, 1988).

Cady and Sata Yoshioka (1991) have used a case study to illustrate the use of a learning contract in clinical practice. In this example, a learning contract was developed as a means to facilitate hospital discharge to the home of an infant on home total parenteral nutrition. Such a case had complex discharge needs, with multiple health care team members involved. The discharge learning contract was constructed to facilitate cohesion between the infant's parents

TABLE I Applied examples of learning contracts

Academic level	Subject group	Part of course contracted	Reference
Undergraduate	Pharmacist Students, University Wyoming	Pharmacy Communications Course	Hardigan, 1994; Berger and Felkey, 1987
	Medical Students, Quillen-Dishner College of Medicine, East Tennessee	5 week project in the field of gerontology Dissertation	Fox and West, 1983
	BA Health Care Studies Students, School of Health Care Studies, Oxford. Brookes University, John Radcliffe Hospital, Oxford, England Student Nurses at the Faculty of Nursing University of Alberta, Canada	Medical-surgical placement	Snowball <i>et al.</i> , 1994 Richardson, 1987
Professional qualifications	Physiotherapist students, Mowhawk-McMaster School of Physiotherapy, Canada	Clinical elective	Solomon, 1992
	Advanced Communications Computer Systems Officer Training Course for Air Officers at Keele Air Force Base in Mississippi	Course Project	Iverson, 1995
	Pre-service teacher education course students at School of Learning and Development Queensland University of Technology, Australia	Psychology of Teaching and Learning class	Dart and Clarke, 1991
Adult education	Students on a philosophical ethics course at University of Wisconsin-Stout	Whole course	Barlow, 1974
	English as a second language students, French as a second language students, Nanyang Technological University, Singapore	Whole course	McGarrell, 1996

and the various health care providers involved in the discharge process. Limitations to the use of a clinical learning contract were identified and included any setback in the infant's health, inability of the infant's family to follow the medical regime and changes in the health care team.

BENEFITS AND LIMITATIONS OF LEARNING AGREEMENTS

Reported benefits of learning contracts include learner individualisation, student motivation, learner autonomy, increased utilisation of resources and flexibility for both student and faculty.

Individualisation

The main advantage is that it is tailored to suit the individual learners or group of learners, providing a means of reconciling a learner's personal needs with the formal assessment

requirements of an educational institution or other accrediting body (Solomon, 1992; Anderson and Boud, 1996). A contract can be used to build on and develop the existing skills and experience of the learner. Similarly, it enables equity by promoting accessibility within their courses. For example, learners who cannot attend regular classes may pursue their individual objectives through open learning as defined by a learning contract, demonstrated by Walker and Kennedy (1977) with the western Australian open learning contract. The twenty-two adults who participated in this study were unable to undergo campus-based adult education due to one of the following reasons:

1. being farmers whose time of high activity coincided with formal assessment periods at academic institutions;
2. shift workers who could not fit into the existing timetables;
3. older people who did not have formal prerequisites and who needed a confidence-building educational experience system to start them off;

4. adequately qualified people for whom the existing system was, in their perception, too rigid.

McGarrell (1996) concluded that learning contracts, in second language learning and teaching, were adaptable to the needs of a given group to facilitate individualisation and learner autonomy.

Motivation

Students who have identified their own learning needs are likely to find courses to be more meaningful, relevant and interesting for them. Hence, motivation and commitment are likely to be higher than with traditional learning and assessment methods. This benefit was identified by Martens (1981) in student nurses who utilised learning contracts throughout their training.

Autonomy

As mentioned previously, learning contracts encourage learners to take responsibility for their own learning. Learners, therefore, become less dependent upon direction from others.

Utilisation of Resources

Barlow (1974) found that students on a philosophical ethics course at the University of Wisconsin-Stout were extremely imaginative with learning resources. Traditionally used books and journals in the field of ethics were combined with more unusual resources such as films, television scripts, results of questionnaires, photographs, music, novels and plays, in addition to groups of people possessing expertise and experience in the areas in which the students were working.

Flexibility

The contract provides for some flexibility so that the students and faculty may select learning experiences based upon the students' needs and available learning resources (Beare, 1985). The contract can be open to re-negotiation if, for instance, the learner wished to change direction or modify the original objectives, allowing flexibility of learning. In Solomon (1992) study of learning contracts for the clinical elective of physiotherapy students, the supervisors reported flexibility as an advantage in 46% of the contracts. Almost half (44%) of the supervisors reported making some changes in the contract following the initial negotiation. Martens (1981) reported 6 of the 40 final year student nurses renegotiated their learning contract at Capital University, Columbus.

LIMITATIONS OF LEARNING CONTRACTS

The reported limitations of learning contracts include unfamiliarity of the process for both teachers and learners, lowering of academic standards and being overly time-consuming.

Unfamiliarity

The unfamiliarity of initiating learning contracts may be a problem for both teachers and learners. Teachers are required to hand over some control of the learning process to the learners in the negotiating stage. Knowles (1986) suggests that contract learning is most successful when there is strong institutional support for the role of the teacher shifting from that of imparter of knowledge to facilitator of learning. Medical students expressed feelings of high anxiety throughout the use of learning contracts (Fox and West, 1983). Students reported that generally they felt higher levels of anxiety at the beginning of the experience than at the end. Beare (1985) concluded that the learning contract requires

the commitment of the faculty and will be difficult to implement if the faculty does not become a facilitator of learning. Gross and Elkhart (1986) spoke of the need for the faculty to be flexible and willing to support the student. Unless these changes occur, the contracting process may not be successful.

Solomon (1992) reported physiotherapy students' reactions to the contracting process, monitored by a post placement questionnaire following introduction of a learning contract in their clinical electives. The students stated they were unprepared for the negotiation components of the contracting process. Further training that emphasised the skills involved in negotiations was considered for positive feedback of the learning contracts.

Anderson and Boud (1996) have identified that some students are unsure of what is required with a learning contract, or are confused about assessment or supervisor expectations. They may feel stressed and even hostile to the new way of operating.

Lowering of Academic Standards

There may be a latent fear that increasing student autonomy, through a vehicle such as a learning contract, leads to a corresponding decrease in academic and professional standards. For example, there may be concern that work undertaken to complete a learning contract may be less academically demanding or less rigorously assessed than work undertaken for any other assignment. However, this does not seem to appear in practice. Iverson (1995) reported that students negotiated their grades for project work as part of their learning contract with the advanced communication computer systems officer training course. The higher the grade negotiated the more was expected of the students in terms of both quantity and quality. Only one group contracted their project for less than a grade of 100%.

Time Consuming

It may be perceived that negotiating individual contracts with large numbers of students and limited staff resources may be too time-consuming (Martens, 1981; Anderson and Boud, 1996).

This may be resolved, however, by modifying the basic method of contraction to suit local conditions. For example, time spent on the initial discussion and drafting of contracts could be saved later if students are working independently rather than meeting at a set time each week for a teacher-led class. Solomon (1992) reported that physiotherapy students (number not stated) attending a clinical elective felt that the learning contract, though more time-consuming than using a standardised evaluation form, was a valuable learning tool. During students' first exposure to learning contracts they felt they were spending an inordinate amount of time (mean 8.5 h) in preparation of the initial contract. After the provision of additional practical experience, in an attempt to increase the efficiency of the process, the mean reported preparation time had decreased to 3.4 h during the second year of the course.

SOUTH THAMES HOSPITAL PREREGISTRATION PHARMACIST TRAINING

Learning contracts are documented to be particularly suited to a competency-based structured course (Anderson and Boud, 1996). Preregistration pharmacists have such a training programme with clear objectives laid down by a professional body.

In the UK, all newly-graduated pharmacy students must undertake, and satisfactorily complete, a training and experience programme before becoming eligible to register as pharmacists. This is known as the preregistration training programme. It is structured towards motivating trainees to take more responsibility

for their own learning by having to demonstrate a pre-determined standard of ability (Wykes and Edges, 1993). The Royal Pharmaceutical Society of Great Britain's (RPSGB) requirements for this programme are stated in their Preregistration Training Manual and governed by their Byelaws on Preregistration Training.

Assessment of preregistration pharmacists is based on performance and knowledge as recommended by the RPSGB's Working Party on Preregistration Training (1987). Performance is assessed through a competency-based training programme, linked with three-monthly appraisals of the preregistration pharmacist by their tutor or trainer. Only the core aspects of preregistration training are assessed for competence, i.e. those aspects central to the profession, which every newly registered pharmacist must be competent to perform. Sectoral aspects are experiences specific to each sector of the pharmacy profession (community, hospital or industry) for which no assessment of competency is required.

A registration examination assesses the preregistration pharmacists' underpinning knowledge.

In the South Thames region, the training of preregistration pharmacists is delivered mainly at base hospitals and supplemented by a series of days organised by the South Thames Pharmacy Education and Training Team (STPETT). The STPETT was established following the guidelines laid down by EL(95)27 (NHS, 1995). During this project period, the team comprised of two Whole Time Equivalent (WTE) Principal Education and Training Pharmacists and a 0.3 WTE Preregistration Pharmacist Facilitator.

With regard to preregistration pharmacists, the responsibilities of the STPETT are:

1. facilitating remuneration of the preregistration pharmacist salary based under the Non-Medical Education and Training levy;
2. providing local support to preregistration pharmacists/tutor/trainers;

3. organising a series of study days;
4. evaluating quality of preregistration pharmacist training;
5. production of a Training Guide.

The Training Guide includes comprehensive objectives and practice activities for each area of hospital practice and have been designed by Specialist network groups within the South Thames region. Their purpose is as an adjunct to the RPSGB's Preregistration Training Manual.

Within the South Thames region, an agreement exists concerning the provision of training and experience for preregistration pharmacists. Senior Pharmacy Managers at preregistration base hospitals arrange for provision of training and experience for pharmacy graduates in return for the graduates' salary paid by the NHS South Thames Executive. This agreement was negotiated between the National Health Service Executive South Thames and Senior Pharmacy Managers at preregistration pharmacists' base hospitals under current Non-Medical Education and Training levy arrangements.

HOSPITAL PREREGISTRATION PHARMACIST STUDY DAYS

A series of study days is run for hospital preregistration pharmacists within South Thames. The aims of the programme are to:

1. complement the rotational programme of preregistration training and experience and base hospitals;
2. address specific issues required by the RPSGB and the preregistration tutors and trainers;
3. provide an opportunity for all of the South Thames hospital-based preregistration pharmacists to meet and learn together.

Attendance is compulsory for South Thames hospital preregistration pharmacists as stated in the Agreement for Provision of Training and

Experience for preregistration pharmacy graduates. The aims and objectives of each study day are found in the South Thames Preregistration Training Guide also produced by the STPETT and distributed to the preregistration pharmacists and their tutors at the start of their preregistration year. Seven of the study days required pre-course material to be completed prior to attending the course.

Aims

The aim of this study was to determine if learning agreements were an appropriate educational tool for preregistration pharmacists attending a series of South Thames Hospital Pharmacist Preregistration Study Days. Benefits and limitations of the learning agreement were examined. Finally, areas for improvement within the course identified from the learning contract are discussed.

METHOD

The South Thames Preregistration Pharmacist Course consisted of 17.5 days held during the preregistration year. The Preregistration Pharmacist Facilitator was responsible for the design and delivery of the course. The South Thames Education and Training Working Party advises the STPETT of the content and delivery of all training programmes, including the preregistration programme. The working party comprised 12 members, including pharmacists, technicians and members of the STPETT from throughout South Thames area representing Teaching Hospitals and District General Hospitals. Attendance of the South Thames Hospital Preregistration Course was compulsory for South Thames hospital preregistration pharmacists as stated in the Agreement for Provision of Training and Experience for preregistration pharmacy graduates.

Subjects of the study were preregistration pharmacists who attended the South Thames Hospital Preregistration Pharmacist Study Day Programme. Originally, 52 preregistration pharmacists commenced the course. One was excluded from the study due to leaving South Thames after 6 months for personal reasons. The preregistration pharmacists were based at 23 hospitals with a range of 1–7 preregistration pharmacists at each one. Eleven of the posts were split with pharmaceutical industry or community pharmacy. Demographic details of the sample size were obtained through a questionnaire.

The training programme commenced with a three-day residential short course. The context of the learning agreement was introduced via a presentation on the subject followed by a workshop. The term “agreement” was used to prevent misconceptions on legality by the preregistration pharmacists. The preregistration pharmacists formed into small groups and drew up a group learning agreement between all the preregistration pharmacists and the STPETT. After allowing time for group discussion, small groups of preregistration pharmacists reformed in larger groups and presented their group learning contracts to the whole preregistration cohort. After a period of negotiation, a learning agreement was drawn up between the two parties. With the exception of one preregistration pharmacist, both parties signed. The original was kept with the preregistration pharmacist and a copy with the Preregistration Pharmacist Facilitator of the STPETT.

The learning agreement was reviewed three weeks later, at the next training day, and 6 months from the date of signing. Opportunities for renegotiations were available on both occasions. Evaluation of the learning agreement was performed by a postal questionnaire. This questionnaire was divided up into 2 parts:

1. Part A consisted of the learning agreement objectives expressed in a questionnaire form concerning the students’ view of their own

and course organiser success in meeting the negotiated objectives.

2. Part B consisted of 10 validated statements concerning the application of learning agreements.

The questionnaire was anonymous but number coded. It was posted with a covering letter three months after the end of the preregistration year to the sample group and representatives of the STPETT who had been directly involved with the course and who had attended the majority of the days alongside the students. These were the preregistration pharmacist facilitators and one of the Principle Education and Training Pharmacists. Non-respondents were sent the questionnaire again two weeks after the date of initial distribution.

Results were to be analysed using the Statistical Package for Social Sciences version 6.1.

1. Part A: Each item of the questionnaire was analysed to identify if both parties had met each individual agreement.
2. Part B: Cronbach's coefficient alpha (Cronbach *et al.*, 1972) was calculated as a measure of internal consistency. The mean and standard deviation of response to each statement were calculated. The responses by the two members of STPETT were compared with those of the students'. A frequency histogram of student total scores was included to give a measure of their satisfaction with the learning agreement.

RESULTS

The sample size for the learning agreements (LA) was 50 due to exclusion of one preregistration pharmacist who did not sign the learning agreement. The gender and age range distribution is shown in Table II.

The preregistration pharmacists were based at 23 hospitals throughout the region, with a range

TABLE II Gender and age range distribution of preregistration pharmacists for the learning agreement (*n* = 50)

Gender		Age range (years)				
Males	Females	20–23	24–27	28–30	31–40	>40
24%	76%	79%	17%	2%	2%	0

of 1–7 at each hospital. Eleven of the posts were split between industry or community pharmacy. The response to the questionnaire was 76%.

Learning Agreement Questionnaire

Part A of the learning agreement questionnaire (items 1–25) used a 5 point Likert scale with the “strongly agree” and “agree” responses subsequently combined into a single “agree” response. The negative responses were similarly combined and the result Agree/Uncertain/Disagree data used for analysis. This recoding of data aided interpretation by increasing the frequency of each category. The students' responses regarding their own success in meeting learning agreement objectives are shown in Table III.

The 14 statements in Table IV sought the students' view of the STPETT in achieving their objectives within the scope of the learning agreement. They are accompanied by the corresponding results.

The course organisers were also invited to complete the learning agreement questionnaire but the small sample size would make quantitative comparison with the students' data unreliable. A more qualitative description of the course organisers' perception of the learning agreement was necessary. They both agreed with all the learning agreement statements but both registered a “Disagree” for the following:

Q5 that students were prepared for study days and had carried out all precourse work;

Q16 that course organisers provided feedback;

TABLE III Students' perception of meeting objectives expressed as a percentage ($n = 38$) for Part A of the learning agreement questionnaire

Statement	Agree	Uncertain	Disagree
<i>The preregistration pharmacist:</i>			
1. Demonstrated a professional attitude at all times	94.7	2.6	2.6
2. Actively participated and contributed to all regional activities	100	0	0
3. Enhanced and exchanged ideas with colleagues	100	0	0
4. Respected speakers and trainers involved with the various regional activities	92.1	5.3	2.6
5. Was prepared for study days i.e. carried out pre-course work if requested	89.5	2.6	7.9
6. Provided written feedback using the appropriate evaluation forms for each activity and also the end of year review	100	0	0
7. Informed one of the South Thames Team if unable to attend a study day and arranged for a copy of the work done from that day	100	0	0
8. Applied what was learnt from study day back at base hospitals	89.4	10.5	0
9. Fulfilled practice activities stated in the South Thames Guide to Preregistration Pharmacist Training Manual i.e. project and case presentations	97.4	2.6	0
10. Kept South Thames Pharmacy Education and Training informed of current progress	76.3	15.8	7.9
11. Achieved the required competencies and passed the Registration Examination	97.3	0	2.6

Q21 that course organisers provided support for the Registration exam;

Q22 that course organisers developed or expanded on the mentor system and enhanced links with previous preregistration pharmacists.

Part B of the learning agreement (items 27–35) was analysed using a 5 point Likert scale, the statements being deemed more suitable to graduated responses. The sample size was 38. The mean and standard deviation of responses to each statement are shown in Table V. Responses to question 26 were not given any statistical analysis, as it was a simple yes/no response to indicate whether previously the student had ever entered into a learning agreement. Of the 38 responses only one “no” was given to question 26.

Cronbach's coefficient alpha was calculated from Part B of the questionnaire (items 27–35): $\alpha = 0.83$ for sample size $n = 38$ and number of items was 9. This shows a good level of internal consistency, against a traditionally accepted minimum value of 0.6.

Within Part B of the learning agreement questionnaire, a minimum total score of 9 and a

maximum of 45 could be attained: the mean total satisfaction score was 24.5. A frequency histogram of student satisfaction with the learning agreement is shown in Fig. 2 with the scale midpoint at 27.0

DISCUSSION

Demographic Data

The student intake for the preregistration pharmacist programme had predominantly originated directly from University. It could, therefore, be expected that prior to commencing the course the majority of students in the study were highly self-motivated to obtain registration and familiarity with a traditional fact-based teaching and examination environment.

Indeed student comments from the learning agreement questionnaire showed this expectation to be the case:

“If we had no learning agreement it would not affect my ownership, commitment or attitude to

TABLE IV Students' views of the STPETT in achieving their objectives within the scope of the learning agreement, expressed as a percentage ($n = 38$)

Statement	Agree	Uncertain	Disagree
<i>The South Thames Education and Training Team:</i>			
12. Ensured that the opportunity to attain a minimum level of competence was available at all base hospitals	89.5	10.5	0
13. Organised a structured regional training programme	100	0	0
14. Provided training on areas required by the RPSGB	89.5	2.6	7.9
15. Was accessible and approachable for any matters involving preregistration training	89.5	10.5	0
16. Provided feedback where appropriate and relevant i.e. case presentations, project	76.3	2.6	21.1
17. Acted on the preregistration evaluation of present and past South Thames activities	78.9	21.1	0
18. Selected a high quality of trainers and speakers to support the South Thames Training Programme	97.3	2.6	0
19. Provided handouts for training sessions when needed	100	0	0
20. Provided opportunities for role play of clinical scenarios	94.7	5.3	0
21. Provided support for registration exam	68.4	15.8	15.8
22. Developed or expanded the mentor system and enhanced links with previous preregistration pharmacist from South Thames	31.6	13.2	55.3
23. Encouraged self-directed learning	84.3	10.5	5.2
24. Increased awareness of roles and responsibilities of Pharmacy as a Profession	92.2	7.9	0
25. Introduced and developed knowledge and essential skills i.e. competency based training, team, building time management	100	0	0

TABLE V Student mean responses and standard deviation for Part B of the learning agreement ($n = 38$) (Scale: 1=strongly agree; 2=agree; 3=uncertain; 4=disagree; 5=strongly disagree)

Question No.	Statement	Mean	Standard deviation
27	I found the concept of a learning agreement confusing	3.74	0.95
28	Learning agreements encouraged an organised approach to work	2.34	0.85
29	Learning agreements made learning my responsibility	2.74	0.95
30	Learning agreements encouraged a motivated attitude throughout the course	2.71	1.01
31	I benefited by having a learning agreement	2.63	0.91
32	Learning agreements promoted ownership and relevance of course to me	2.52	0.92
33	Learning agreements encouraged self-reflection	2.58	0.98
34	Learning agreements encouraged student-teacher rapport	2.74	1.01
35	I would choose to use a learning agreement again	2.50	1.06

the prereg year, a lot of the points...seem to be common sense for a professional and shouldn't need to be written."

Another student stated: *"I feel ... evaluating preregs by feedback or test would be fast and effective"*, which supported the theory that the examination remained the ultimate objectives of learning.

Application of Learning Agreements

The following conclusions were drawn from the learning agreement questionnaire analysis and associated student comments.

The introduction of a learning agreement was met with enthusiasm from both course organisers and students at the start of the course. However, as the year progressed the students

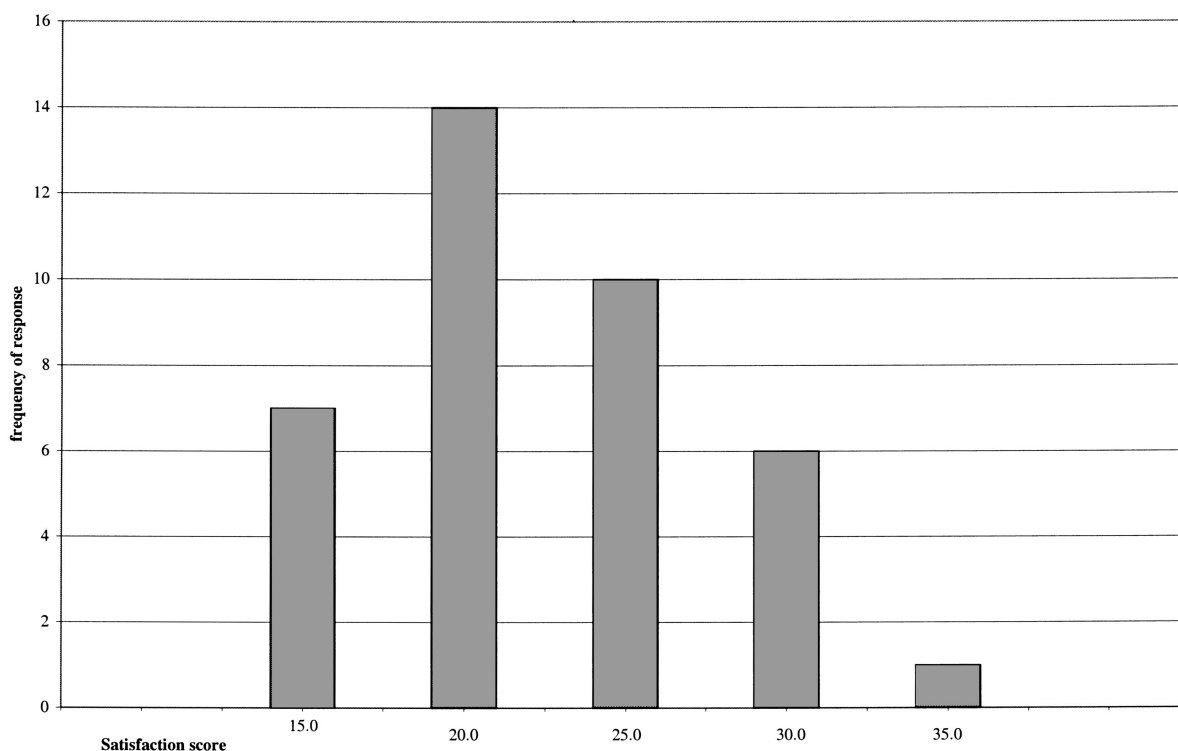


FIGURE 2 Frequency histogram of student satisfaction with the learning agreement.

became more focussed on the needs of passing the registration examination rather than reviewing their progress against agreed targets. Comments from the students included:

"Being given the agreement on the first study day enabled us to be aware of what was expected of us...It also gave an insight into the fact that the course was a two-way affair and that the organisers/trainers also had goals/aims to meet."

"It did make me feel that the trainers were very committed to our development at the time of signing."

"A learning contract has been a good idea because it formally sets out some common ground for tutee/tutors."

The professional nature of the course made it particularly important to address the students' perception that unnecessary targets were being included in an agreement. Some students did feel

this had occurred. Below were typical statements from such students:

"I thought it was patronising to expect people who have just successfully completed a 3 year degree to sign a learning agreement."

"Felt like a guarantee of good behaviour on residential courses."

One proposal to counteract this perception was that "domestic" targets (such as punctuality or personal conduct) could usefully be removed from the formal learning agreement. They would instead be developed jointly with students at the start of a course as a set of agreed "ground rules".

A recognised failing on behalf of the course organisers was not arranging regular review or renegotiation of learning agreements throughout the year. It was felt that learning agreements would only work effectively if

they were “a more integrated part of South Thames study days, with regular referral”.

The lack of regular reviews had the effect of allowing the agreements to lapse in comparison with the students’ looming target of passing the registration examination:

“... once I signed it and handed it over, I never looked at it again.”

The need for renegotiation of agreements was highlighted when students found themselves unable to meet targets due to changed circumstances:

“While the learning agreement and courses led by South Thames were excellent, a lot of use did not get the appropriate back-up, time or mentor support at base hospitals.”

This lack of regular review and renegotiation prevented the flexibility of learning agreements being realised as an ongoing performance management tool. This failure to deliver agreed actions by the course organisers actually had a demotivating effect:

“I did not get feedback at all on the project. I was very disappointed about this.”

A contributing factor to this disenchantment was also seen to be the perceived inequity of consequences should a student fail to deliver agreed targets, compared with non-delivery by the course organisers:

“... if either side broke the agreement, it would be me who was affected, therefore negating the point.”

There is a linked issue of the credibility of a learning agreement as a tool for improving a student’s performance:

“... perhaps a learning agreement isn’t going to make anyone participate if they don’t wish to ...”

It was notable that one student refused to sign an agreement, and there was no source of authority to insist on participation. This

highlighted the need to convince students of the potential benefit of learning agreements and ensure that a consistent message was put across by STPETT and Senior Pharmacy Managers.

The questionnaire revealed that the STPETT were more satisfied with the use of learning agreements than the students.

Statistical analysis of Part B of the questionnaire showed it to be internally consistent (coefficient $\alpha=0.83$) with “total satisfaction” being marginally positive. It was seen that learning agreements encouraged an organised approach to work, and the concept was not seen to be confusing (Table V). Most students also stated that they would use a learning agreement again.

Areas for Further Improvement and Research

The following actions were identified as necessary to maximise the benefit of adopting learning agreements within the South Thames region preregistration course:

1. Maintain the momentum of learning agreements throughout the course, through regular review, with appropriate re-negotiation of targets.
2. Fully involve Senior Pharmacy managers at base hospitals in the processes of target setting and review. This could be incorporated into the appraisal process.
3. Include use of learning agreements in the “Agreement for Provision of Training and Experience for Preregistration Pharmacy Graduates” already negotiated between Senior Pharmacy managers and the NHS Executive South Thames.
4. Address the factors, which contributed to some of the course organisers’ targets not being met on the course, namely project feedback and support for examinations.

Future research may identify quantitative links between the use of learning agreements and the students' perceived quality of teaching.

CONCLUSIONS

It is recognised that the application of learning agreements within the context of preregistration pharmacist training had not been without difficulty, but it represented the first attempt in the sample group to implement this technique.

Despite these difficulties students and course organisers, subject to the improvements summarised above, welcomed the concept of a learning agreement. The majority of students questioned expressed a willingness to enter into a learning agreement again. This supports the view of the literature that previous experience of learning agreements is a major factor in perceived usefulness as an educational tool.

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