

EXPECTATIONS OF POST GRADUATE STUDENTS ON THE TEACHING OF THE QUALITY IN HEALTHCARE

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ABSTRACT

Quality is to satisfy clients' expectations. In a training setting, the class is a part of the Universe of the final clients. Expectations of trainees are an important part of the quality of training professionals on Quality theory and practice.

Thus, the aim of this study was to check the students' expectations on the course on Quality Systems, of the post graduation on Advanced Pharmaceutical Technology.

An enquiry was conducted to assess the expectations of the Quality Systems of a post graduate course conducted on the post graduate trainees. The open questions were analyzed, classified and evaluated.

Post graduate students ranked their expectations as follows: 1st Practical approach and usefulness of concepts and tools; 2nd Straightforward and clear program; 3rd Trainees faculty relationships; and Classes shorter than two hours; 4th Group projects; 5th Use of video support.

The usefulness of the concepts and tools on the clear cut program supported by good communication between trainees and faculty on a balanced workload with the use of practical projects are key-success factors for a good training programme on Quality as far as trainees are concerned.

KEY WORDS: Quality, expectations, training

RESUMEN

La calidad es satisfacer las expectativas de los clientes. En un entorno de formación, la clase es una parte del universo de los clientes finales. Las expectativas de los alumnos son una parte importante de la calidad de la formación de profesionales de calidad en la teoría y la práctica.

Así, el objetivo de este estudio era comprobar las expectativas de los estudiantes en el curso sobre Sistemas de Calidad, del postgrado de Tecnología Farmacéutica avanzada. La investigación se realizó para evaluar las expectativas de los sistemas de calidad de un curso de postgrado realizado con los alumnos de postgrado. Las preguntas abiertas fueron analizadas, clasificadas y evaluadas.

Los estudiantes de postgrado clasifican sus expectativas de la siguiente manera: 1. Enfoque práctico y utilidad de los conceptos y herramientas; 2. Programa sencillo y claro; 3. Las relaciones de los alumnos con la facultad y las clases inferiores a dos horas; 4. Proyectos de grupo; 5. La utilización de vídeos de soporte.

La utilidad de los conceptos y herramientas en el programa junto con una buena comunicación entre alumnos y profesores, con una carga de trabajo equilibrada y el uso de proyectos prácticos son factores clave del éxito para un buen programa de formación sobre la calidad en lo que se refiere a los alumnos.

PALABRAS CLAVE: calidad, expectativas de formación

INTRODUCTION

Quality is about satisfying clients' expectations. In a teaching environment, the student / trainee is a part of the Universe of the final clients.

Post graduate students come back to college in order to improve their knowledge in very specific issues in a way of improving their curriculum so that they can make progresses in their professional career, or make a difference in the work market. Colleges are responsible for answering the student's requests and fulfil their expectations, so it should be a positive cost/benefit result for both parts.

Fulfilment of students / trainees' expectations is an important part of the quality of training professionals on Quality theory and practice. Thus, the aim of this study was to check the students' expectations on the subjects of Quality Systems I and Quality Systems II, as part of the post-graduation on Advanced Pharmaceutical Technology at the Faculty of Pharmacy of the University of Lisbon.

MATERIALS AND METHODS

The questionnaire (Annex I) to the post graduate students /trainees was conducted in order to assess the satisfaction of their expectations on the Quality Systems' classes of the post graduate course "Advanced Pharmaceutical Technology". The questionnaires for both modules, Quality Systems I and Quality Systems II, included close and open ended questions addressing 13 topics (9 for the 1st module and 4 for the 2nd one) together with their personal overview on the programme itself, teaching methods, time-frame and evaluation process, as well as logistic aspects of the course. Please see the annex as an example of the Quality Systems I questionnaire.

The close ended questions were analysed according to the students' opinion about each issue at three levels: 1) their interest on the topic, 2) how innovative it was perceived, and 3) applicability to their daily practice.

The open ended questions were analysed, classified, evaluated and grouped as follows: 1) Practical approach and usefulness of concepts and tools, 2) Programme straightforwardness and clearness, 3) Trainees faculty relationships, 4) Classes length, 5) Group projects, and 6) Use of video support.

RESULTS AND DISCUSSION

The close ended questions, the most interesting topics selected by the trainees were the "Quality tools" and the "Process Analytical Technology (PAT)" being the latter also considered as the most innovative.

Masters Degree students considered as less innovative topics those related with "Costs of quality and non-quality" as well as Basic knowledge concerning quality concepts and quality methodology evolution. The last one was also considered the less interesting topic of the whole programme. This finding was expected as most of the students were already familiar with quality issues on their working environment.

The most relevant topics to the daily work selected by the students were: "Risk management", "Assessment of quality and non-quality costs", "Quality tools", "Quality indicators" as well as "Audit techniques". The least relevant according to them would be the "Value stream analysis in industry products and services" and "PAT".

These last results may be due to the effect of lack of professional experience as all of the students were rather young specialists, with no previous coordinator duties on their work organisations and some of them with no working experience in industry up to that moment; their opinion can also be due to a non-effective communication between faculty and trainees regarding the relevance of some of the topics.

The open ended section of the questionnaires were analysed and grouped in 6 categories according to the opinions/comments of the students and ranked according to frequency of occurrence (Table 1).

Table 1: Grouped answers by category to the open ended questions

categories according to the opinions/comments of the students	Frequency of occurrence	Qualitative assessment
Practical approach and usefulness of concepts and tools	33.33%	positive
Logistical and organisational issues	20.83%	negative
Trainees faculty relationships	16.66%	positive
Classes shorter than two hours	16.66%	negative
Group projects	8.33%	positive
Use of video support	4.16%	positive

The highest frequency reflects the expectations of the students on the Practical and usefulness of the concepts, tools and skills (Hands-on and How-to) acquired during the course of the postgraduate studies on Quality Systems.

Logistical and organisational issues which include the administrative aspects (e.g. Delivery of documentation, secretarial support, evaluation method, more in-depth investments on some topics of the programme) was the second most desired topic and the one needing most improvement effort. For example delivering support literature before classes.

Use Video and audio in the Classroom such as Autoscopy of their performance specially the topic related to audits. The classes also included films where students were invited to comment on. For example videos demonstrating bad practices in the pharmaceutical industry and students were asked to comment and identify those bad practices.

Group work such as: The use of risk management in pharmaceutical stability testing; PDCA for

pharmaceutical logistical chain – group packaging; Optimisation of batch traceability records (data) in a pharmaceutical production plant.

Regarding the duration of the classes, it was found to be too long as they run at the end of a full-time working day. They were 2 hours theory and 2 hours practical work, being in one semester in sequence, i.e., in total 4 hours in one day every week.

Teacher student relationship was found to be an important part of a successful working environment, facilitating a good team work between trainees and faculty.

CONCLUSIONS

According to our findings the most fundamental issues for our trainees are as follows: 1) Applicability of concepts and tools, 2) Clarity of the programme, 3) Communication between trainees and faculty, 4) A balanced workload, and 5) Use of practical projects.

There is a window of opportunity to improve the Logistical and organisational issues and also the schedule and timetables of the classes. The faculty should be able to transmit the relevance of each of the topics included in the programme and at the same time to involve the trainees in the proper use of the concepts and techniques. This is possible to achieve on the very straight forward and pragmatic topics such as “Quality tools”, “Indicators” and “PAT” but more difficult in topics such as “Quality” or “Agency effect”.

Future perspectives:

A student’s self assessment is expected to be implemented in the next edition of this course with the aim of anonymous continuous self-monitoring of knowledge transferred and also a monitoring of the teacher performance, on a modular bases. Therefore, allowing for adjustment of knowledge acquired by the students / trainees and the adjustment of the course programme time invested in each topic and teaching approaches and techniques.

REFERENCES

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ANNEX I

Ficha de Avaliação do Curso de

SISTEMAS DA QUALIDADE I

Este questionário tem como objectivo conhecer a opinião dos alunos sobre diversos parâmetros relativos ao processo de ensino / aprendizagem dos módulos desta Acção de Formação visando melhorar a sua qualidade e adequação.

Por favor, leia atentamente as perguntas e responda sinceramente às questões que lhe são formuladas. O inquérito é anónimo e confidencial. A sua opinião é importante para nós.

Obrigado.

- 1) **Relativamente aos seus objectivos e expectativas quanto ao ensino / aprendizagem da disciplina de Sistemas da Qualidade I, como avalia os seguintes elementos da sua estrutura curricular?**

	Muito Bom	Bom	Suficiente	Fraco	Não Tem Opinião
Objectivos: Os objectivos do Curso correspondem às suas expectativas?					
Conteúdos Programáticos: Os temas seleccionados são adequados aos objectivos do Curso?					
Conteúdos Programáticos: O Curso proporcionou a aquisição de novos conhecimentos ou capacidades?					
Metodologia de Ensino: O método de ensino / aprendizagem utilizado (relação aulas magistrais/tutoriais) é adequado aos objectivos do Curso?					
Carga Horária: A Carga horária do Curso é adequada aos objectivos do Curso?					
Processo de Avaliação: O método de avaliação é adequado aos objectivos do Curso?					

- 2) **Relativamente à logística do Curso como avalia os seguintes parâmetros?**

	Muito Bom	Bom	Suficiente	Fraco	Não Tem Opinião
Material de Apoio: O material de apoio fornecido (textos, colectânea de folhetos das apresentações, bibliografia, etc) é adequado aos objectivos do Curso?					
Sala de aula: A sala de aula tinha condições e equipamentos adequados aos					

objectivos do Curso?

Secretariado: O desempenho do Secretariado do Curso foi adequado?

3) Avaliação Específica

	1	2	3	4	5
Tema 1: Qualidade; Qualidade e a sua evolução; Conceitos em qualidade. Inspeção, controlo, monitorização, garantia, gestão; Estrutura, Processos e Resultados					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 2: Estrutura legal e regulamentar nacional e internacional					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 3: Sistemas de Gestão da Qualidade (e.g. ISO, EFQM); Análise comparada de modelos; Gestão dos “Sistemas de Gestão da Qualidade”					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 4: Entidades e organizações na Qualidade na indústria WHO, EMEA, ICH, FDA, PIC e IPC/S, FE, FP, ANVISA (introdução)					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 5: Ferramentas da Qualidade (Diagramas de decisão, causa efeito, análise de pontos críticos)					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 6: Indicadores de qualidade					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 7: Qualidade na cadeia de valor dos produtos e serviços da indústria Qualidade em Produtos e Serviços na indústria farmacêutica Qualidade em produtos integrados (e.g. Medicamentos e DM, ...)					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 8: Técnicas e métodos de auditorias da qualidade					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					
Tema 9: “Tecnologias Analíticas em Processo” (PAT)					
Interesse do assunto					
Inovação do assunto					
Aplicabilidade à prática diária					

(1- mínimo; 5 – máximo)

4) Globalmente como avalia a utilidade dos conhecimentos / competências adquiridos?

Muito Bom	
Bom	
Suficiente	
Fraco	
Não sabe	

5) Indique os aspectos mais negativos do Curso

6) Indique os aspectos mais positivos do Curso

7) Sugestões:

Muito obrigado pela sua colaboração