King’s Learning Institute

Higher Education Research Network Journal

Prizewinning Essays

Volume 3

Editor: David B Hay
Editor’s Introduction

Welcome to the third edition of HERN-J, the Journal of the Higher Education Research Network. The first edition of HERN-J was published in 2010, coinciding with the College “Excellence in Teaching” conference. This current volume, like that first edition, comprises the prizewinning essays of participants in the Postgraduate Certificate in Academic Practice (PGCAP) at King’s Learning Institute (KLI). Thus all the essays here have been written by staff from King’s College or by faculty of the Royal Veterinary College (RVC) with whom we shared our project. Between the first and third editions, Volume 2 of HERN-J had a different focus. This was a special edition for “Chairside and Bedside Teaching” and the papers in that were invited contributions. Here, however, we return to the more original purpose of the journal; showing and promoting critical higher education scholarship from across a range of disciplines and researchers’ subject settings. Thus there is no single issue that draws these essays together. But nevertheless, all the essays share a common ground since all are works in progress and the common theme among them is a subject in development (Kristeva, 1998). This is to say that all the essays show the new development of their authors while also helping to extend and develop the subject field of higher education research/teaching. For most researcher/teachers, scholarship of education has a different voice and viewpoint to their pre-existing subject expertise. As Alison Harvey puts it in her essay, there is a shift from teaching “things” (like “concepts”) towards teaching “people”: or as Katherine Brown suggests; “the lived complexity of the person’s project” is our growing focus.

This brief introduction is not intended as a synthesis instead I highlight some of the ways that this volume shows the “King’s Experience” through academics’ scholarship. HERN-J is a College publication since while university teaching is a global concern, what really matters in education is the point of contact between students, their disciplines and teachers. It is also important to communicate the insights that arise from critical inquiry at this point of contact. Thus part of the purpose of this journal is to share and develop our collective values as these emerge within our higher education practice. Despite the local circulation of this journal many papers in earlier editions of HERN-J have already reached an international readership. It is only one year since our first edition, but several of the articles from Volume One are already cited in the world-wide research literature and feedback or requests for reprints have reached me from across the UK and from researchers/teachers in the United States, Australia and South Africa. This journal is important for King’s College and for KLI. It shows our genuine commitment to the quality of teaching in our research-intensive environment and HERN-J also demonstrates how many of our writers have extended the reach of their research to include the critical development of teaching. One of the distinctive features of the student learning experience at King’s and the Royal Veterinary College (RVC) is the way that students are taught by some of the elite researchers and practitioners in respective fields. Often, however, the higher education community neglects to explain the ways that experts’ teaching is of special value (see Mcfarlane, 2010). All the papers here are examples of their authors’ work in progress: together and apart these show distinctive higher education.


David Hay (Editor)
How is the role of clinical teachers in veterinary medicine perceived and what is is expected of them?

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Submitted: March 2011

Abstract
Clinical teachers at University Veterinary Teaching Hospitals are specialised veterinary surgeons that are recruited based on their advanced training and experience as well as on merit originating from scholarly activities. In addition to teaching responsibilities, clinical teachers also have to fulfil requirements in the areas of clinical service, research and administration. This paper aimed to identify attributes in veterinary clinical faculty that are considered most and least important by members of their work environment (fellow faculty, clinical training scholars [CTS], undergraduate students, and referring veterinary surgeons) and to determine whether the opinions of these subgroups differed. Faculty (n=50), CTS (n=35), students (n=200), and referring veterinary surgeons (n=25) were presented with a questionnaire containing 15 pre-selected potentially desirable attributes. The respondents were asked to rank the three most important and the three least important for an effective clinical teacher. Respondents were further asked to select in which of the three main activities (clinical service, teaching, or research) they think clinical teachers are currently investing the most and the least effort and in which they should invest the most and the least effort. All respondent groups agreed that “Competence/Knowledge” was among the most desirable attributes. Faculty, undergraduate students, and referring veterinary surgeons additionally included “Enthusiasm” in the top three, whereas CTS regarded “Respects Independence” as more important. All respondent groups consistently chose “Scholarly Activity” as one of the three least important characteristics. A similar number of faculty members (38%) expressed that the greatest effort should be invested in clinical service or teaching, and the greatest proportions of CTS (44%) and undergraduate students (56%) felt that most emphasis should be put on teaching alone. These differences in opinion between respondent groups indicate that what is perceived as effective clinical teaching differs depending on the role of the stakeholders of the work environment who engage with veterinary clinical teachers.

Introduction
The definition of effective clinical teaching has been the topic of a considerable body of literature (Sutkin et al., 2008; Arky, 2006; Golub, 2006). Medical and Veterinary Schools usually let students decide who is a “good” or “excellent” clinical teacher via student-voted teaching awards or surveys (Sutkin et al., 2008). The importance of recognising didactic skills in clinical specialists in teaching institutions and of considering them in the recruiting process has been recognised (Sutkin et al., 2008; Buchel and Edwards, 2005; Morrison et al., 2005) but the majority of clinical teachers is aware of the fact that there are considerable discrepancies in the quality of teaching between individual educators (Slobody, 1950). Better teaching should translate into better learning by physicians or veterinary surgeons in training; this in turn should result in better patient care (Stern et al., 2000).

The development of a modern academic environment has profoundly changed expectations in clinical teachers (Sutkin et al., 2008). Whereas, only a few decades ago, Abraham Flexner, a research scholar at the Carnegie Foundation for the Advancement of Teaching, reminded physicians to “think much and publish little” (Flexner, 1940), research activity appears to have rapidly outrun teaching in importance in
most medical teaching institutions and a world-wide “publish or perish” culture has emerged: Research productivity has become the principal means by which the accomplishment of faculty is judged, whereas activities in teaching and administration duties are commonly considered less important (Cooke et al., 2006). Many educators in the medical field appear to feel threatened by this development (Sutkin et al., 2008; Cooke et al., 2006) and it is perceivable that some clinical teachers invest more effort in areas where they can easier obtain quantifiable recognition (research, clinical service) while the requirements in other fields (teaching, administrative duties) are less prioritized. Economic pressure forcing faculty to spend more time involved in clinical service at the expense of teaching has also been held responsible for this development in medical university hospitals (Cooke et al., 2006).

The Royal Veterinary College (RVC) is part of the University of London and represents the largest Veterinary School in the United Kingdom. The Bachelor of Veterinary Medicine (BVetMed) curriculum is a 5-year undergraduate course and approximately 250 students graduate as veterinary surgeons (BVetMed) from the RVC every year to pursue careers in clinical practice, research, industry or education. Clinical Training Scholars (CTS) are postgraduate human or veterinary surgeons undergoing advanced training in a clinical hospital setting: At the RVC they are enrolled in a 3-year programme with the goal to obtain the credentials required to sit international Veterinary Specialty Board examinations (e.g. European College of Veterinary Surgeons). In addition to providing an extended and accelerated clinical experience, training programs for CTS at the RVC emphasize on scholarly development in form of a mandatory intercalated Master’s degree (MVetMed). While undergoing training at the RVC, CTS are also assisting in clinical rotation teaching, thereby assuming a double role as an assistant teacher and as a student.

The definition of what exactly describes an effective clinical teacher is difficult (Sutkin et al., 2008; Buchel and Edwards, 2005). Several student surveys investigating desirable attributes of clinical teachers have been performed in human medicine (Sutkin et al., 2008; Fields et al., 2000; Kendrick et al., 1993; James et al., 2002; Lucas et al., 2002; Cox and Swanson; 2002). In these studies, “non-cognitive” human characteristics such as inspiration, supporting of learning activities and good communication skills were consistently considered as very important. Some of these studies have focused on areas of agreement and disagreement between teachers and learners (Buchel and Edwards, 2005; Gjerde and Coble, 1982): In a survey by Buchel and Edwards (2005) faculty and CTS (residents) in postgraduate Family Medicine training programmes agreed that enthusiasm and clinical competence are among the most important attributes of a medical educator and that scholarly activity is not important. CTS further appeared to consider it important that the clinical instructor respects their autonomy and independence as learners, whereas faculty members considered this as one of the least important characteristics. Interestingly, faculty members felt that their serving as a role model is important, but CTS ranked this at the bottom of their list (Buchel and Edwards, 2005). The various definitions of an “effective clinical teacher” are therefore contested. The purpose of this paper was to compare the current perceptions and expectations of clinical veterinary teachers among faculty, CTS, referring veterinary surgeons, and undergraduate students at the RVC.

Desirable Attributes in Veterinary Clinical Teachers

Final year BVetMed students (n = 200), CTS (n = 35), and faculty (n = 50) at the RVC were invited via email to anonymously fill out an online survey that was created using commercially available software (www.surveymonkey.com). The link to the questionnaire was also sent to a selection of veterinary surgeons referring animal patients to the RVC Equine Referral Hospital (n = 25). Participants were presented with a list of attributes considered desirable in clinical teachers (modified from Buchel and Edwards, 2005; Table 1). Respondents were asked to select and rank the three most important and the three least important attributes from this list. Data were exported to spreadsheet software (Microsoft Excel©), and the answers were counted for each respondent group. Differences in ranking of the selections between the different respondent groups were identified using Fisher’s exact test. Margins of error for the comparisons were
obtained by calculating the 95% confidence intervals for the differences between the group proportions. A p-value of less than 0.05 was considered statistically significant.

One hundred forty-five respondents completed the questionnaire (37 faculty members, 19 CTS, 79 undergraduate students, and 10 referring veterinary surgeons), which resulted in an overall response rate of 47% and individual response rates of 74%, 54%, 40%, and 40%, respectively. All respondent groups ranked “Competence/Knowledge” high among the most desirable attributes. Faculty, undergraduate students, and referring veterinary surgeons additionally included “Enthusiasm” in the top three, whereas CTS regarded “Respects Independence” as more important. A large proportion of faculty, CTS, and undergraduate students considered “Clarity” as one of the most important attributes, whereas referring veterinary surgeons ranked “Availability” as more important. “Scholarly Activity” was consistently chosen among the three least important characteristics by all respondent groups. CTS and students also ranked “Evidence-based Practice” among the three least important attributes. “Role Model” was placed in the bottom three characteristics by faculty, referring veterinary surgeons, and undergraduate students (Tables 2 and 3).

Analysis of the comparisons between proportions of faculty and the other respondent groups revealed several differences in opinion (Table 3). However, statistical significance was demonstrated only for selected attributes. A significantly lower proportion of students than faculty listed “Competence/Knowledge” among the three most important attributes. Faculty ranked “Evidence-based Practice” as among the three most important attributes more often than did any other respondent group. This trend reached statistical significance compared with the responses of undergraduate students and of all respondents combined. Undergraduate students and CTS ranked “Respects Independence” significantly higher than did faculty (p = 0.032 and p = 0.014, respectively) or referring veterinary surgeons, of whom only 8% ranked it as among the three most important attributes. Referring veterinary surgeons, undergraduate students, and CTS considered “Availability” a more important attribute than did faculty (p = 0.016, p = 0.001, and p = 0.049, respectively). Students and all respondents combined placed “Listening Skills” among the three least important characteristics significantly less often than did faculty (p = 0.05 and p = 0.001, respectively). “Role Model” was ranked among the three least important attributes by a significantly higher proportion of faculty than CTS (p = 0.047) or undergraduate students (p = 0.007).

Perceived and Desired Work Emphasis of Veterinary Clinical Teachers

In the second part of the questionnaire, participants were asked to identify in which of the three areas of clinical service, research, or teaching they think clinical teachers at the RVC currently invest the most and least effort. Finally, they were asked in which area they think faculty should invest the most and least effort. Considerable differences in opinion were identified between faculty and the other respondent groups when participants were asked to comment on current and desired most and least emphasized activities of clinical teachers at the RVC. Most faculty and half of the undergraduate students felt that clinical teachers currently invest most effort in providing clinical service, whereas most CTS and referring veterinary surgeons did not share this opinion (p = 0.022 and p = 0.022, respectively). Most CTS thought that faculty invested the greatest effort in research, and referring veterinary surgeons thought that most emphasis was placed on either research or teaching. A similar number of faculty members (38%) expressed that the greatest effort should be invested in clinical service or teaching, and the greatest proportions of CTS (44%) and students (56%) felt that most emphasis should be put on teaching alone. Most students (68%) and CTS (56%) also agreed that clinical teachers currently invest the least effort in teaching. Most faculty (57%) felt that they put the least emphasis on research, and 67% of referring veterinary surgeons thought that faculty currently invest the least in clinical service, with the difference being statistically significant (p = 0.001). The largest proportion of all respondent groups agreed that clinical teachers should invest the least effort in research. Overall, only a small group of respondents felt that clinical teachers currently put a similar emphasis on all three activities or that they should actually do so.
Conclusions

Teaching represents an important part of nearly every professional’s daily activities and for some it is a career choice. For a “good” educator, teaching should not merely be a display of knowledge but the process of identifying areas for learning and deciding on interventions that stimulate the learning process (Ursano et al., 2007).

The necessity of identifying characteristics that define a quality medical educator and including them in the recruiting process in teaching institutions has been recognized (Sutkin et al., 2008; Buchel and Edwards, 2005; Morrison et al., 2005), but the exact definition of an effective clinical teacher remains contested. Working as a clinical teacher in a university teaching hospital puts multiple demands on faculty. In the current academic environment, the medical educator ideally has to simultaneously excel in the areas of clinical service, teaching, research and administration. Whereas some individuals welcome the challenge of trying to achieve recognition in all fields, other clinical teachers may actually feel threatened by this combination of demands (Cooke et al., 2006). In reality, most clinical teachers prioritize their efforts in one of the areas over the others.

Feedback about the quality of teaching is obtained from learners in most medical teaching environments (Sutkin et al., 2008). However, individual achievements of clinical teachers in this particular area are difficult to quantify and to acknowledge. Merits in teaching appear to contribute little to the specialist’s reputation and status in the modern medical work environment: Gaining recognition on a national or international level relies on medical specialists either demonstrating outstanding achievements in research (e.g. peer-reviewed scientific publications) or obtaining specialist status in a clinical discipline. These efforts appear to commonly occur at the expense of teaching (Cooke et al., 2006). The purpose of this survey was to identify what is expected of clinical teachers by various stakeholders in the academic community at a UK veterinary school. At the same time, we wanted to investigate how faculty, CTS, undergraduate students, and referring veterinary surgeons currently perceive the role of a clinical teacher.

Overall, the survey identified areas of agreement as well as some interesting differences in opinion between the individual groups. Not surprisingly, all respondents agreed that “Competence/Knowledge” is among the most important desirable attributes in a medical educator. There was also strong agreement that individuals demonstrating “Enthusiasm” in their professional activities are the better educators. Consistent with findings in previous studies (Buchel and Edwards, 2005; Kendrick et al., 1993; Gjerde and Coble, 1982) all groups ranked “Scholarly Activity” among the least important attributes. Unlike faculty members who ranked this attribute among the least important, referring veterinary surgeons ranked “Availability” among the most important characteristics. This emphasizes the necessity of good communication skills and effective time management when working as a clinician in an academic setting with multiple different demands. The obvious difference in opinion between faculty and large part of their referring colleagues could result in less referral cases being sent to academic Veterinary Hospitals in light of the growing competition from private specialist centres with less or no teaching and research responsibilities.

In agreement with the study conducted by Buchel and Edwards (2005) a significantly larger proportion of CTS and undergraduate students at the RVC listed “Respects Independence” among the three most important attributes when compared with faculty. However, significantly more referring veterinarians ranked this attribute among the three least important attributes compared with faculty. In a clinical hospital environment, independence for learners usually occurs in the form of allowing them to perform simple diagnostic or therapeutic tasks without direct intervention by a senior staff member. The different opinions of faculty, CTS and students may be explained by the fact that clinical faculty members have the ultimate responsibility for the welfare of patients in the hospital and may therefore not feel comfortable with delegating certain tasks to less experienced individuals. Additionally, CTS and students may compete for learning experiences during clinical instruction (Kochevar and Peycke, 2008). The extent of this competitive behaviour between learners may not always be fully perceived by the senior clinical
teacher, and he or she may fail to take the appropriate measures to combat this issue. A significantly larger proportion of faculty respondents ranked “Role Mode” among the least desirable attributes compared with CTS and students. Conversely, a larger proportion of CTS and students ranked this attribute as among the three most important when compared with faculty. However, this trend failed to reach statistical significance. This finding was surprising and in contrast to a comparable study in human medicine (Buchel and Edwards, 2005) in which CTS consistently listed this attribute as less important than faculty.

The second part of the study identified similar differences in opinion between faculty and the other groups. Respondents were asked to select the most and the least emphasized activity of clinical faculty from the areas of clinical service, teaching, and research. They were also asked to select the activity they thought clinical teachers should emphasize most and least, respectively. Most faculty respondents and half of the students agreed that clinical teachers currently invest the most effort in clinical service. This opinion was not shared by most CTS, who thought that clinical teachers invest the greatest effort in research. Interestingly, most referring veterinarians also felt that faculty currently place the most emphasis on teaching or research and the least emphasis on clinical service. Despite the small number of responding veterinary surgeons, this finding could indicate referring colleagues’ dissatisfaction with the clinical service currently provided. The largest proportions of students and CTS felt that teaching is currently the least prioritized activity and that it should be the most important one. The latter finding is of concern because it questions efficacy in the responsibilities of clinical teaching and suggests that some educators may merely be perceived as clinicians who “do some teaching”. Most faculty members felt that they invested the least effort in research and that this is appropriate. CTS, students, and referring veterinary surgeons agreed with faculty that they should prioritize the other activities, which was consistent with the findings from the first part of the survey, in which scholarly activity was ranked as one of the three least important attributes of a clinical teacher by 80% of respondents, and with previous studies (Buchel and Edwards, 2005; Kendrick et al., 1993; Gjerde and Coble, 1982).

A considerable limitation of this study lies in the small number of subjects in some of the groups (e.g. referring veterinary surgeons), which makes the differences in opinion more distinct but statistically less meaningful. However, the survey revealed several interesting findings with regard to expectations of clinical teachers and about the RVC as a work environment.

Overall, apart from “Competence/Knowledge”, which is a mandatory requirement for a medical educator, most attributes that were considered important were general human characteristics that can be developed by means other than discipline-specific training or knowledge (“non-cognitive skills”). This should not surprise as bias originated from the selection options in the questionnaire. However, the differences in opinion between groups regarding the importance of attributes and emphasis of activity indicate that effective performance as a clinical teacher requires flexibility, advanced communication skills, and the will to excel in diverse fields.

**Acknowledgements**

The author would like to thank to all the faculty, CTS, undergraduate students and referring veterinary surgeons who participated in the survey. Thanks go also to Dr. Thomas H. Witte BVetMed PhD DACVS MRCVS for his assistance with data analysis.
References


Table 1. Attributes presented to respondents for completion of the first part of the online survey (modified after Buchel and Edwards, 2005). The respondents were asked to select their choice of the three most important and the three least important characteristics of an effective clinical teacher.

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm</td>
<td>Energetic, positive attitude, enjoys her or his job</td>
</tr>
<tr>
<td>Competence/Knowledge</td>
<td>Competent in case management, professional skills, knows literature, engaged in continuing professional development</td>
</tr>
<tr>
<td>Clarity</td>
<td>Answers questions clearly, summarizes important points, able to explain difficult topics</td>
</tr>
<tr>
<td>Availability</td>
<td>Easily accessible, courteous, not hurried, not distracted</td>
</tr>
<tr>
<td>Nonjudgmental</td>
<td>Contributes to safe and healthy learning environment, does not act condescending, encourages discussion</td>
</tr>
<tr>
<td>Respects Independence</td>
<td>Treats clinical training scholars and students as colleagues, does not micromanage</td>
</tr>
<tr>
<td>Feedback Skills</td>
<td>Encourages two-way communication, provides timely constructive feedback</td>
</tr>
<tr>
<td>Role Model</td>
<td>Worth emulating in the profession, healthy balance between professional and personal life</td>
</tr>
<tr>
<td>Professionalism</td>
<td>Respects clients and patients, students, clinical training scholars, and support staff; dresses appropriately</td>
</tr>
<tr>
<td>Sincere</td>
<td>Genuine, honest, open, willing to admit when wrong or if he or she does not know</td>
</tr>
<tr>
<td>Organised</td>
<td>Efficient, good time management, respectful of other people’s time management, and able to adapt</td>
</tr>
<tr>
<td>Well Prepared</td>
<td>In lectures, presentations, rounds</td>
</tr>
<tr>
<td>Evidence-based Practice</td>
<td>Familiar and confident with the principles of evidence-based medicine</td>
</tr>
<tr>
<td>Scholarly Activity</td>
<td>Active in research, many publications, nationally or internationally renowned</td>
</tr>
<tr>
<td>Listening Skills</td>
<td>Listens attentively, does not interrupt, appears interested</td>
</tr>
</tbody>
</table>
Table 2. Overall ranking of the attributes from Table 1 selected by all respondents combined (n=145). n = number of respondents who selected the attribute within the three most important or three least important, respectively. % = percentage of all respondents combined who selected the attribute within the three most important or three least important.

<table>
<thead>
<tr>
<th>Most Important</th>
<th>n</th>
<th>%</th>
<th>Least important</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enthusiasm</td>
<td>86</td>
<td>59.31</td>
<td>Scholarly Activity</td>
<td>116</td>
<td>80.00</td>
</tr>
<tr>
<td>Competence/Knowledge</td>
<td>83</td>
<td>57.24</td>
<td>Evidence-based Practice</td>
<td>73</td>
<td>50.34</td>
</tr>
<tr>
<td>Clarity</td>
<td>63</td>
<td>43.45</td>
<td>Role Model</td>
<td>57</td>
<td>39.31</td>
</tr>
<tr>
<td>Availability</td>
<td>38</td>
<td>26.21</td>
<td>Respects Independence</td>
<td>33</td>
<td>22.76</td>
</tr>
<tr>
<td>Nonjudgmental</td>
<td>31</td>
<td>21.38</td>
<td>Sincere</td>
<td>26</td>
<td>17.93</td>
</tr>
<tr>
<td>Respects Independence</td>
<td>25</td>
<td>17.24</td>
<td>Well Prepared</td>
<td>25</td>
<td>17.24</td>
</tr>
<tr>
<td>Feedback Skills</td>
<td>22</td>
<td>15.17</td>
<td>Professionalism</td>
<td>22</td>
<td>15.17</td>
</tr>
<tr>
<td>Role Model</td>
<td>21</td>
<td>14.48</td>
<td>Availability</td>
<td>20</td>
<td>13.79</td>
</tr>
<tr>
<td>Professionalism</td>
<td>20</td>
<td>13.79</td>
<td>Feedback Skills</td>
<td>20</td>
<td>13.79</td>
</tr>
<tr>
<td>Sincere</td>
<td>15</td>
<td>10.34</td>
<td>Nonjudgmental</td>
<td>13</td>
<td>8.97</td>
</tr>
<tr>
<td>Organised</td>
<td>14</td>
<td>9.66</td>
<td>Organised</td>
<td>13</td>
<td>8.97</td>
</tr>
<tr>
<td>Well Prepared</td>
<td>7</td>
<td>4.83</td>
<td>Listening Skills</td>
<td>10</td>
<td>6.90</td>
</tr>
<tr>
<td>Evidence-based Practice</td>
<td>6</td>
<td>4.14</td>
<td>Competence/Knowledge</td>
<td>4</td>
<td>2.76</td>
</tr>
<tr>
<td>Scholarly Activity</td>
<td>2</td>
<td>1.38</td>
<td>Enthusiasm</td>
<td>3</td>
<td>2.07</td>
</tr>
<tr>
<td>Listening Skills</td>
<td>2</td>
<td>1.38</td>
<td>Clarity</td>
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<td>0.00</td>
</tr>
<tr>
<td>Most Important</td>
<td>n</td>
<td>%</td>
<td>Least Important</td>
<td>n</td>
<td>%</td>
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<td><strong>Total (N=145)</strong></td>
<td></td>
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</tr>
<tr>
<td>Enthusiasm</td>
<td>86</td>
<td>59.31</td>
<td>Scholarly Activity</td>
<td>116</td>
<td>80.00</td>
</tr>
<tr>
<td>Competence/Knowledge</td>
<td>83</td>
<td>57.24</td>
<td>Evidence-based Practice</td>
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</tr>
<tr>
<td>Clarity</td>
<td>63</td>
<td>43.44</td>
<td>Role Model</td>
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<tr>
<td><strong>Faculty (N=37)</strong></td>
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<tr>
<td>Competence/Knowledge</td>
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<td>72.97</td>
<td>Scholarly Activity</td>
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<td>78.38</td>
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<tr>
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<td>72.97</td>
<td>Role Model</td>
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<td>56.75</td>
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<tr>
<td>Clarity</td>
<td>17</td>
<td>45.95</td>
<td>Sincere</td>
<td>12</td>
<td>32.43</td>
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<td><strong>CTS (N=19)</strong></td>
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<tr>
<td>Competence/Knowledge</td>
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<td>68.42</td>
<td>Scholarly Activity</td>
<td>14</td>
<td>73.68</td>
</tr>
<tr>
<td>Clarity</td>
<td>9</td>
<td>47.37</td>
<td>Well Prepared</td>
<td>8</td>
<td>42.10</td>
</tr>
<tr>
<td>Respects Independence</td>
<td>6</td>
<td>31.58</td>
<td>Evidence-based Practice</td>
<td>6</td>
<td>31.58</td>
</tr>
<tr>
<td><strong>Students (N=79)</strong></td>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>63.29</td>
<td>Scholarly Activity</td>
<td>67</td>
<td>84.81</td>
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<td>Evidence-based Practice</td>
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<td>74.68</td>
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<td>Role Model</td>
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<td>29.11</td>
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<td><strong>Ref (N=10)</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
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<td>8</td>
<td>80.00</td>
<td>Role Model</td>
<td>8</td>
<td>80.00</td>
</tr>
<tr>
<td>Availability</td>
<td>6</td>
<td>60.00</td>
<td>Respects Independence</td>
<td>6</td>
<td>60.00</td>
</tr>
<tr>
<td>Enthusiasm</td>
<td>4</td>
<td>40.00</td>
<td>Scholarly Activity</td>
<td>6</td>
<td>60.00</td>
</tr>
</tbody>
</table>

Table 3. Proportions of top three and bottom three characteristics chosen by the individual respondent groups and by all respondents combined. Total = all respondents combined; Faculty = faculty respondents; CTS = clinical training scholars; Students = undergraduate students; Ref = referring veterinary surgeons. N = number of participants in respondent group; n = number of respondents in the group that selected the attribute within the three most important or three least important, respectively. % = percentage of respondents in the group that selected the attribute within the three most important or three least important.
Constructing and Maintaining Academic Identities in Professional Military Education

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Submitted March 2011

Introduction
As a result of a generation of change “universities and academic life are becoming more complex and differentiated spaces” (Clegg, 2008 p.330). These changes have led to a series of debates about the form and function of university (Tapper, 2007). Valuable insights into the changing nature of higher education can be gained from the “mundane and quotidian” realities of academic life, which “leads to the question of: what does it mean to be a university academic” (Chowaniec, 2005 p.265, 269)? This paper seeks to answer this question by identifying how academic identities are constructed.

The paper presents findings from an atypical case study where the institutional environment challenges the nature and meaning of academic work. The challenges emerge in this context through the continual interaction and cooperation of two distinct professional cultures – the military and academia – to deliver Professional Military Education (PME); such that identity construction, and defence, is linked to questions of purpose, authority and autonomy (Shelton, Richeson, and Vorauer, 2006). In this context academics feature as a visible minority, with their own values and behaviours, but are expected to conform to the expectations of language, dress and organising principles of the military. Thus, here, perhaps more explicitly than elsewhere, “what it means to be an “academic” is by no means a given, but is a matter of dynamic relationships between social and epistemological interests and structures” (Barnett, 2000 p.256).

Identity matters in academia in several ways, primarily as questions about how individuals identify with their professions; how they are engaged in making sense of their professional setting; and the extent to which identities are scripted and resisted (Alvesson, Ashcraft and Thomas, 2008; Becker and Trowler, 2001; Churchman and King, 2009; Kogan, 2000; Neumann, 2001). Studies on academic identity, reveal key constitutive elements, which incorporate the private and public “scripts” of the professional self in relation to discipline, institution and the academe (Carr, 2006; Ensor, 2002; Henkel, 2005; Moore, 2003). Academic identities are therefore understood “not as a fixed property but as part of the lived complexity of a person’s project” (Clegg, 2008 p.329). As the introductory paragraph implies, academic identities are, however, perceived as under threat from “new public management” driven by new corporatism and neo-liberalism which replaces educational values with economic ones (Beck and Young, 2005; Churchman and King, 2009; Harris, 2005; Lucas, 2004). Although, Archer (2008) and Clegg (2008) argue instead that changes to higher education have had the positive impact of widening academic identities beyond those of the traditional research-driven middle-aged male (c.f. Reay, 2004). Therefore this research, where academic identities are continually questioned has relevance for broader understanding of academic identities and the purpose of university. Given the differences between PME and mainstream universities though, the task here is not to assess from where perceived threats emerge, but to establish how under challenging conditions academic identities are (re)constructed.
The Research Context and Methodology

PME is similar to the education of other professional bodies as like medicine, engineering and law, curriculum is determined in partnership with professional associations, education is intensely linked to professional capacity, and the delivery of PME is more than imparting specialist knowledge, but includes the intensive socialization into the values of a professional community; that is the creation of a professional habitus (Bourdieu, 1995). However, unlike the education and associate academic disciplines of other professions, the military has only recently engaged with academia. This is reflected in the little research on PME which tend to focus on its military value (Barnett, 1967; Howard, 1984; Klinger, 2004; Williamson, 2009). Other differences are that those engaged in PME do not determine the certification of professional competence, and often PME is carried out in a separate institution, as opposed to operating as a “professional school” embedded into the wider liberal ethos of a higher education institution.

This research was carried out at one such PME institution, which has a contractual relationship with a university for academic provision. It focuses on senior officer education, and has carried out PME to post-graduate level for a number of years on a purpose built military site. The 50 full and part time Academic Staff (AS) have their own head of department, administrative support team and office space. Women represent approximately one third of all AS and very few AS have a military background. The department researches the military, security, and defence, through and across disciplines in the social sciences and humanities. Its collective presence is visible through the strategic display of staff academic publications, through the hanging of photographs of AS and of the university main campus, and by the fact that AS, unlike most on site, do not wear a uniform.

This case study of academic identity is focused at the micro-level of an academic department. Consequently, data are generated through semi-structured interviews among academic staff, which are controlled for seniority and discipline. Analysis of the data was undertaken using Mason’s (2002) three levels of readings; literal, interpretive and reflexive. As a result the findings are not statistically representative or part of a quantitative content analysis. This approach carries some limitations, including the realisation that there is no singular interpretation of a text (Lindlof and Taylor, 2002). However taking into consideration powerful critiques of traditional methods, and by following good practice guidelines, this bias is minimised (Mason, 2002; Maxwell, 2005). The discussion which follows is derived from the interpretive level and is structured in light of interviewees’ relationships to knowledge, to clients/others, and to organizational structures (Beck and Young, 2005). It therefore focuses on the construction of academic identity through establishing and defending academic purpose, authority and autonomy.

Academic Purpose

AS interviewees demonstrated strong inner commitments to the role of the academic, linked to the idea of academia as a vocation (Said, 1994; AS37; AS19; AS02; AS150). Implicit in interviews was an intrinsic value of the quest for knowledge, and of specific knowledge domains, such that they demonstrated a significant degree of disciplinary loyalty despite working in a multi and interdisciplinary department. However, disciplinary fidelity was not exclusive. For example an interviewee while proclaiming loyalty to her discipline, talked of the ways in which being part of AS enabled her to “borrow from other disciplines” (AS15). Discipline allegiance was further tempered by the integrated teaching model, where individuals taught outside their subject area, which engendered collegiality. This would appear to confirm existing research that sees new knowledge structures as “demand-led” calculations by institutions that emerged from teaching arrangements (Beck and Young, 2005; Archer, 2008). However, in this context of professional education, it is also perceived as a necessary condition of the AS subject of study - war and the military - which cannot be “disciplined”. In reconciling their subject loyalty with this inter and multidisciplinary model, there is an increased emphasis on “generic skills” of an academic (intellectual enterprise, criticality, publication and professionalism) as opposed to specific disciplinary content as the sole driver of the relationship to knowledge (AS41; AS150; AS32).
However, AS felt that the intrinsic value of disciplinary knowledge and generic academic skills were not always accepted, and deemed them insufficient for explaining their position and roles to military partners, students and others. A significant majority argued that their purpose was questioned by a persistent assertion of a divide between training and education. This divide is challenged by AS who see it as exaggerated by some military partners who fear academic values corroding military ones (AS22; AS15). This fear among clients ties into debates about the purpose of the military since the collapse of the Cold War (Dandecker, 1994). AS challenge this by linking their professional values to those of the post-modern military officer (Snider, 2000). AS not only argued against this divide but also believed that it was “partly our own fault” for not conveying properly “what we’re about and who we are to the clients” (AS41).

Asserting AS professional identity was often tied to the production of “useful” knowledge (AS150). For example, while it was noted by one AS that it is important that “we don’t do directed research” (AS45) it was nevertheless important to another that his research “chimed” with the military (AS02). Neumann (2001) asserts that in most disciplines teaching is viewed as generic activity that lies on top of the “real” academic work (research) and is unconnected with the disciplinary community at the heart of being an academic. However, as the above discussion indicates this is not entirely accurate in this case, where the sense of academic purpose for interviewees was continuously defined through dynamic relationships with their knowledge subject as students and as the object of research. This sense of purpose is perhaps unique to those teaching “professional bodies”, and how AS construct purpose relates to wider discussions about the role of private enterprises and professional bodies in higher education (Jawitz, 2009; Harris, 2005).

**Academic Authority**

“How does a young academic tell an older officer what to do? To overcome this, many “bond” more with them, they replicate military behaviours…. Older colleagues, it’s easier to play into their stereotypes of what an academic is… it’s ok to be a typical academic when you’re older and have respect, but as a young man, that’s much harder....” (AS02)

The quest for “authority” was keenly felt, and is perhaps a reflection on the minority status, and the challenges to the purpose of academic knowledge and life, but as the quote above indicates it is highly gendered and age related. Two distinct ways of managing academic authority emerged from the interviews: the first was to demonstrate research credentials as more important than “experience”, and the second focused on expressing difference and autonomy.

A number of “professional” departments manage authority through a claim to authenticity based on having staff who continue to “practice” the discipline (Jawitz, 2009). However, in this case, only two AS had served in the military. The absence of military service appeared continually in the perceived struggle to obtain authority in the classroom, perhaps because military culture prioritises experiential knowledge (Wilson, 2008). Consequently, there is a paradox which is unique to PME institutions, where the dominant “new masculine bourgeois subject” allegedly found in higher education institutions is not “manly” enough for the military (Brown, 2009). Thus the mobilizing of academic masculinity/masculinities in the PME environment takes on another form (Martin, 2001): namely authenticity and authority were re-scripted by AS away from experience towards policy relevance and influence through the creation of useful knowledge. Thus it was considered important that students “read our work”, that “we advertise our research” and its relevance, that “we attend military seminars and workshop” (AS22; AS37). Informally this also occurred in the “parading” of research at lunch and coffee times (AS45). This “speaks” not only to the military in a military language, but also to wider discussions about knowledge-transfer and the knowledge-economy (Peijun and Harris, 2007; Williams, 2007).

Another area of importance to asserting authority is the strict adherence to the academic dress code at the PME institution. In line with military expectations, the written dress code prohibits jeans, and expectations are that men will wear at least a jacket and tie ordinarily, and if teaching a suit. These dress expectations...
are perceived to be in contrast with other social science and humanities departments in Europe. The code indicates that women should wear the “female equivalent”. The internalisation of this norm among some AS is visible as well, where for example, one AS compared himself to academics at mainstream universities, saying:

“No wonder no-one else takes [academics] seriously; when they don’t take themselves seriously and dress smartly, why should anyone listen to us when we come in unwashed and dishevelled?” (AS21)

This demonstrates the need to perform and embody professionalism in a way in which another professional body can identify with. However, it is worth noting that the relationship to clothing and authority was particularly complex for female AS. A number of women interviewed said that wearing a suit was “putting on armour”, as it helped protect them and gave them “one less thing to worry about” (AS19; AS12). This was developed further in interviews as they related it to gendered assumptions about authority and leadership: “how do you do feminine and authoritative, the two shouldn’t be mutually exclusive…” (AS19; AS45). One interviewee (AS11) then commented on how a former colleague had been “branded” because of her non-conformity to the “conservative” dress code. The “story” of this academic has been told and retold in the department, thereby becoming an “institutional myth” used to indicate failure to become or embody “AS”.

Another narrative of failure to embody AS, is the fear of “going native” and losing academic autonomy. In educational research such autonomy is conceived of as a central academic value, as a right, and as a “socio-technical condition of good academic work” (Becher and Kogan, 1992 p.100; Henkel, 2000). Interviewees frequently claimed that autonomy had to be continually reasserted, and the relationship with the military justified, either to dispel this fear or to positively assert authority. For example:

“... because sometimes they also want us to be part of the furniture, to be ‘house trained’ or ‘tamed’. So to some extent we’re institutionalised, but that institutionalisation also gives us a better insight and greater understanding of the military” (AS15).

In the interviews there was a sense that “military wanna-bees” (AS11) existed, that this fear had been realised, but that they were a minority and none of the interviewees self-identified with this archetype. Also while identifying the problem they also included a range of strategies for preventing it, for example: “I have a very messy office, because I’m a very messy person, but also to show them [the military] that I’m different, that I don’t want to be one of them...” (AS32). Another approach is to be deliberately more critical of military activities in both research and in teaching discussions (AS08).

We see here in the face of perceived challenges to academic purpose and authority that academic identities paradoxically assert their difference and autonomy while simultaneously expressing the utility and seriousness of their work through highlighting publications and dressing “appropriately”.

Academic Performance

Being AS is not simply a matter of holding or embodying the values of AS but it is also about external performance and production (Ball, 2003). This performativity is managed through an audit culture and regulation (Muller, 1998). AS are audited by academic professional bodies, by military bodies and by other governmental bodies. In addition, they are audited through a system of peer review, and student validation. This regulation is internalised by the majority of interviewees. For example: “For all that, peer-review rightly remains the yardstick for academics – we are, and should be judged by the quality of our work, assessed by our peers” (AS12). The importance of the national auditing of research is interesting because AS careers are not dependent upon it. However the interviewees perceived this national exercise as important because it established credibility with the military and the wider academe. This mimicked the
public script that the military and “the University” put forward about AS. Thus we see a Foucauldian self-regulation occurring in relation to these institutional structures (Ball, 1990). However this self-regulation, performance criteria, and constant “surveillance” in teaching and research can lead to alienation/anomie (Beck and Young, 2005).

Indicative of such anomie, is that a significant minority of interviewees expressed a disconnection between this national exercise (which emphasised research outputs) and their everyday working lives (which emphasised teaching and knowledge transfer). Barnett (2003) and Lucas (2004) note that in traditional departments research dominates in the complex relationship with teaching as research is seen as central to the definition of professional identities and what it is to be a university. The function of teaching as explicitly stated in “the contract”, and the priority this had for this minority of AS led them to argue that they interacted with the wider college structures differently to other AS. This initially suggests two communities of practice and meaning: a research community and teaching community (Jawitz, 2009; Wenger, 1998). Such identity demarcation between “research active” and non-active when combined with reinforcing management techniques make it difficult for academics to work effectively in both communities (Fletcher et al., 2007). However AS subverted the institutional control mechanisms that strengthened this demarcation, by arguing that they researched for teaching not for publication. This is an interesting adaptation which allows the dominant discourse of academia to remain in place but redefined the modes of inclusion and exclusion.

**Conclusion**

This research examined the ways in which academics maintained their professional identities in the face of perceived challenges. In light of this, there are three other areas where the research could generate further insight. First, is the extent to which AS construct their workplace as a “greedy institution” (Wright et al., 2004). Second is in revealing the gender dynamics in the construction of AS identity because female AS are a double minority and doubly visible but also the interaction with military gendered identities (Knights and Richards, 2003; Eveline, 2005; Monroe et al, 2008; Woodward and Winter, 2007; Klinger, 2004). This visibility leads to the third area which is to consider the impact of “professional bodies” in higher education and debates on public pedagogy (Giroux 2003).

Three key relationships - with knowledge, clients and institutional structures - emerged through the analysis. These established academic purpose, authority, and autonomy that underpinned AS academic identities. While management tools which compartmentalise academic life into “research/teaching/administrative” functions might easily be mapped onto these relationships, this research shows through the degree of variation that academic identities are less easily bounded. Pre-existing structural arrangements (Bernstein, 2000; Wenger, 1998) as well the “meaning-making” and agency of individual AS (Clegg, 2008; Janawitz, 2009) were shown to be important in the defence and construction of academic identities. More broadly, in terms of the changes in higher education, this research confirms the hegemony of “new public management” project, driven by new corporatism and neo-liberalism in higher education (Beck and Young, 2005; Churchman and King, 2009; Harris, 2005; Lucas, 2004). However, it also corroborates assessments that hegemony is never complete and always resisted (Gramsci, 1971).
The opinions, views, and analysis inferred or expressed in this essay represent the views of the author, and do not necessarily represent the views of King’s College London or the MOD.

This author recognises that the military is diverse. Nevertheless, a hegemonic military culture does exist and it is to this which I refer (Wilson, 2008).

The institution and corresponding University are kept deliberately anonymous in order to preserve the anonymity of respondents. Suffice to say that this is a Professional Military Education institution in Europe.

The research was conducted in accordance with Kings College London Ethics Education and Management Committee. Reference number: REP(EM)/08/09-78. Interviewees are randomly allocated a numerical identifier.

‘Directed research’ is research that is designed to answer specific policy questions or known shortfalls as identified by the military. This is contrasted with ‘self-directed’ research.

This is in contrast with the American model where a majority of AS have had military experience (Mahoney-Norris and Hampton, 2006).

Two key management techniques are used in this department. The first is the ‘loadings plot’ which allocates research, teaching, and administrative roles according to the amount of time each task is expected to take, seeking to establish overall ‘loading’ parity among staff. The second is the annual competition for additional research time (ART) to be placed into individual loadings. Past performance and future outputs promised are used by management to allocate ART.

Hegemony is understood as more than dominance, but requires both consent and coercion (Gramsci, 1971).

References


Managing Students’ and Teachers’ Expectations of Higher Education: A Psychological Contract Approach

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Submitted December 2009

There has been a long-standing interest in student and teacher expectations in studies of higher education (e.g. Ramsden, 2003). However, recent changes to the context of higher education have pushed student expectations higher up the teaching and learning agenda. It is widely claimed that higher education is becoming increasingly commercialised (e.g. Bok, 2003). As noted by Sander, Stevenson, King and Coates (2000), students are increasingly being framed as customers, becoming more and more aware of their rights as consumers. What were historically classed as “preferences” regarding their educational experiences are now considered more as expectations by students, who feel aggrieved when they are not met (James, 2002). As potential “service providers” in this new era of teaching and learning in higher education, it is suggested that teachers are required to modify their role to meet the changing demands of students and can no longer assume that they understand the needs and wants of their student customers (Sander et al., 2000).

Understanding customer expectations in the context of managing customer relationship in the wider business world has been found to be important for the success of service organisations and service workers (Parasuraman, Berry & Zeithaml, 1991). Therefore this shift in higher education would suggest that understanding and managing student expectations is an important part of the role of higher education teachers, and universities more generally, in order to provide a satisfactory and effective learning experience. However, the expectations of student are perhaps not the only expectations that are important here. As students do not simply “purchase” degrees, as they might regular products, but are required to meet certain levels of attainment in order to be awarded a degree, they are not “customers” in the traditional sense. The expectations of teachers in higher education regarding appropriate student behaviour and required levels of attainment are also central and must be transmitted to students as part of the teaching relationship. But it may also be the case that teachers, like students, may have unrealistic expectations of the contemporary teaching relationship. Unrealistic expectations are likely to remain unmet, therefore these are likely to have implications for teaching quality.

This paper does not aim to comprehensively describe the different expectations of either students or teachers, but instead discusses the potential role of the psychological contract, a concept developed mainly within the area of organisational psychology, as a mechanism through which mutual expectations may be exchanged in social relationships. It is suggested that the relationship between teachers and students in higher education is a social relationship, constructed from the perceived understandings of both teacher and student regarding their interaction. In particular, the extent to which the psychological contract may represent a practical tool for teachers in higher education to manage both student expectations and their own within the teaching relationship is evaluated.

The Psychological Contract
Within organizational psychology, the psychological contract has been defined as an individual’s beliefs regarding the terms and conditions of an exchange relationship with another party (Rousseau, 1995).
The concept is based on broader theories of social exchange (e.g. Blau, 1964), which propose that social relationships involve both explicit and implicit obligations and expectations. Guest (1998) points out that the psychological contract itself does not represent simply the expectations that each party holds regarding the exchange relationship, but instead conceptualises the perceived promises made by each party with regard to the relationship. It has been suggested that through psychological contracts people form a cognitive schema, a psychological framework that organises and structures information (Shore & Tetrick, 1994; Rousseau, 2001). Schemas have been found to help people interpret their organisational world and generate appropriate behaviours (Lord & Foti, 1986). Rousseau (1995) suggests that the psychological contract provides people with cues regarding the types of events they may expect and how those events should be interpreted. An important aspect of psychological contract theory is the norm of reciprocity (Gouldner, 1960), which obligates individuals to respond positively to favourable treatment by others, and promotes perceptions of trust and fairness in relationships. Over the past 30 years, the psychological contract has been widely used as a construct to help describe different relationships between employers and employees, and more particularly, explain the subsequent behaviour of employees in studies of work and organisations (see Conway & Briner, 2006).

Findings have indicated that a healthy psychological contract helps to increase satisfaction, engagement and performance and helps to reduce quitting (e.g. Zhao, Wayne, Glibkowski & Bravo, 2007); all outcome variables relevant to higher education. Healthy psychological contracts are those in which there is balance, i.e. there is a fair exchange of obligations, in which there is mutuality, i.e. there is agreement about the terms of the “deal”, and in which the agreed obligations are fulfilled, i.e. the contract is not breached by either party. The notions of balance, mutuality and fulfilment are therefore each important for effectively managing psychological contracts. Moreover, an awareness of the exchange relationship that exists between teacher and student and the importance of these three issues for that relationship may be useful for teachers to develop successful relationships with their students. But before discussing how teachers can use the psychological contract framework to manage the teaching relationship, student expectations are examined in more detail.

**Student Expectations**

Ramsden (2003) suggests that many students have only the slightest idea of what to expect from higher education and often bring with them naive conceptions of what learning consists of when they start at a higher education institution. James (2002) reports findings that prior to joining a university students often make their choices based on a limited range of subjective and idiosyncratic information. Frequently, students rely on entrance criteria (i.e. difficulty) as a proxy for course quality. James suggests that students enter higher education with a vague idea of what is awaiting them, yet a considerable confidence that it will be right for them.

Sander et al., (2000) carried out some research to discover students’ expectations of teaching and learning within higher education in the UK. Using data collected from 395 students from three institutions in the UK, they found that what first-year undergraduate students expected from higher education teaching and what they hoped for were quite different. Their findings indicate (see Table 1) that students’ expectations of the teaching methods that they will experience in higher education reflect the more “traditional” methods, such as large group lectures and tutorials. The main contrast with what students hope for is that they would prefer to have fewer formal lectures and more student-centred teaching.
### Table 1. Preferences and Expectations of Teaching and Learning Methods (from Sander et al., 2000)

<table>
<thead>
<tr>
<th>“Hoped For Rank” order</th>
<th>“Expected” Rank Order</th>
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<tbody>
<tr>
<td><strong>Highest</strong></td>
<td></td>
</tr>
<tr>
<td>Interactive lectures</td>
<td>Formal lecture</td>
</tr>
<tr>
<td>Student-centred teaching</td>
<td>Interactive lecture</td>
</tr>
<tr>
<td>Tutorials</td>
<td>Tutorial</td>
</tr>
<tr>
<td>Teaching sessions based around group work</td>
<td>Teaching sessions based around group work</td>
</tr>
<tr>
<td>Group work</td>
<td>Private study</td>
</tr>
<tr>
<td>Formal lecture</td>
<td>Student-centred teaching</td>
</tr>
<tr>
<td>Private study</td>
<td>Group work</td>
</tr>
<tr>
<td>Student role play</td>
<td>Student presentations</td>
</tr>
<tr>
<td><strong>Lowest</strong></td>
<td></td>
</tr>
<tr>
<td>Student presentations</td>
<td>Student role play</td>
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</table>

Focusing on changes to student expectations, a review by James (2002) for the Organisation for Economic Co-operation and Development considers some of the recent evidence. Firstly, he finds that there has been a decline in the extent to which students expect to fully engage in university life. They are more likely to expect that they can incorporate part-time work into their timetable and to be able to work remotely from campus. Secondly, he notes evidence pointing towards an increase in consumerist attitudes among students. These include expectations of a more passive role in the learning process and making calculations relating to cost-benefit analysis of course elements. Research on teacher views indicate a perception that students are becoming increasingly instrumental, seeking “spoon-feeding” approaches to teaching and focusing on “value-for-money” choices. There are also reports of a growing bimodal distribution to student groups and a growing divide between students seeking to achieve good grades and those happy to scrape a pass. However, James notes an inconsistency in the literature here, pointing towards other studies based upon student reports suggesting that students continue to be highly motivated to learn in their chosen field of study.

James (2002) goes on to critique the view that changes to student expectations are solely linked to a new customer-service orientation. He points to strong marketing on the parts of university, which can often “oversell” the learning experience at a university and increase student expectations. Also, highly selective admissions processes can also influence the expectations of students about the subsequent quality of an establishment, or even about the quality of the student themselves. Finally, James suggests that the initial experiences of students within the first few weeks of arriving at a higher education institution can be hugely important in generating expectations for the future. Here he points towards growth in class sizes, and by implication the less personal and less intensive atmosphere that can contribute to the lack of subsequent student engagement in higher education.

There is also evidence to suggest that more widely within society in the UK, broad and often inaccurate expectations exist regarding higher education. Bligh, Thomas and McNay (1999) begin their book by presenting a number of suggested misconceptions (or even stereotypes) about higher education and the role of teachers and students within it. These include the perceptions regarding the (long) length of academic holidays and the overall practical relevance of academic work and its larger role within society. They also point out that students can often assume that the requirements placed on them at school will be similar to those placed upon them within higher education.
The above section has demonstrated that students bring with them to higher education a broad array of potential expectations regarding their likely experience during their time at such an institution. Considering the increasingly diverse make-up of student populations within the UK and the multiple cultural influences that may also play a role in generating expectations, the array of expectations is likely to continue to widen. There is also a suggestion that the growing commercialisation of higher education, the introduction of student fees and the increased emphasis on marketing for potential students may have altered student expectations and increased them to a point where they may be unrealistic and difficult for teachers in higher education to fulfil. Lastly, there are suggestions that student expectations can also be inaccurate. Considering the likely important of student expectations, their management becomes a key issue.

Teacher Expectations

But students are not the only party to the teaching relationship that have expectations. The role of teachers’ expectations may also be important to understand. As noted previously, students do not simply purchase degrees from universities but have to demonstrate an appropriate level of knowledge and/or ability to attain their qualifications. To this end, the expectations of teachers regarding what the appropriate level of knowledge and/or ability is becomes important, particularly in relation to the communication of those expectations to students. Ramsden (2003) notes that teachers often have often quite particularly content-related expectations regarding what it is they expect students to learn. These are often expressed through the formal or informal learning objectives for any given teaching session. In the context of assessment, Ramsden suggests that discussing assessment expectations with students is a principle means of reinforcing what learning is required and will be rewarded. From Ramsden’s point of view, these discussions are important for developing students’ own expectations that, rather than being feared or disliked, assessment becomes “an opportunity to learn and reveal the depth of one’s knowledge” (p190). Implicitly within his work appears to be a suggestion that one of the key issues for teaching quality is reducing the gap between what teachers expect of their students and what students believe to be expected of them.

Beyond expectations regarding the appropriate forms of learning and level of attainment, teachers may also have a number of other expectations regarding the teaching relationship. For example, teachers may expect their students to attend lectures and tutorials. They may also expect students to be motivated to perform well, to complete the various assignments to the best of their ability and to participate in class discussions. However, considering the various pressures on students and their previous experiences of education, these expectations regarding their behaviour may be unrealistic. Alternatively, the opposite may be the case, such that after repeated experiences of the contrary, teachers begin to expect poor student attendance and participation. Indeed, the low level of motivation among students was one of the suggested widespread misconceptions reported by Bligh et al (1999).

Therefore teachers require a mechanism through which to transfer their expectations with regard to the appropriate level of attainment required and also the appropriate behaviours that are likely to lead students to reach those levels of attainment. However teachers also need a mechanism through which to evaluate the accuracies of their own expectations regarding their students. It is suggested that the psychological contract may be a tool through which teachers can do just that.

Using the Psychological Contract to Improve the Teaching Relationship

While most of the above discussion has focussed on expectations, as noted the psychological contract is comprised of a set of mutual promises (Guest, 1998). Clearly, when promises are made expectations follow. However, expectations can develop from numerous sources (as discussed above) and may not be linked to any particular promise. In order to manage student and teacher expectations, a psychological contract can be formally developed through a series of agreed promises and commitments during a designed classroom exercise. These commitments should be understood to clarify or replace any existing expectations of both students and teacher. These commitments may be best exchanged at the beginning of each taught module,
most usually during an introductory session, and should involve participation of both students and teacher. The precise nature of the commitments is not specified here but should instead arise through the exercise itself and the content of the discussions held within. However, the teacher, who ultimately has to initiate the exercise, should be mindful of the three issues discussed previously when the psychological contract is developed; namely balance, mutuality and fulfilment.

Considering balance first, it is important that the commitments exchanged between teacher and student are perceived to be fair by both parties. As such, the onus should not be on either the teacher or the student to contribute the majority of the efforts to the relationship. For example, the teacher should make students aware of the efforts that they are making for the students in preparing and/or updating lecture material, developing rich and thought-provoking learning environments, etc. The reciprocal commitment of students may therefore include more than simply turning up for the teaching session. Correspondingly, if students commit to preparing well for teaching sessions and being motivated to participate in the session, then the teacher may wish to commit to providing more of a stimulating learning environment than a formal and non-interactive lecture. The content of the commitments is not necessarily important from a psychological contract perspective; more crucial is creating a balanced set of commitments. These do not necessarily need to be particularly extensive, it sufficient that the exchange is just and fair.

This process of developing reciprocal commitments between teachers and students should largely ensure a high degree of mutuality. As these commitments are discussed and agreed within the classroom the deal struck should, in theory, be known to everyone. However, the teacher may want to make sure that ambiguity in terms of the commitments stated is kept to a minimum. In line with this view Ramsden (2003) urges teachers to develop unambiguous aims and an orderly framework to curricula. A clear and shared understanding of what each commitment actually entails is therefore essential for ensuring that there is mutuality in the psychological contract.

Lastly, a common finding in work on psychological contracts is that very often people believe that their particular deal with another person has been breached at some point or that, even worse, the deal has been “violated” (Conway & Briner, 2006). Under such circumstances, deleterious consequences inevitably follow as the other party to the relationship feels less obligated to fulfil their commitments. In contrast, if both parties fulfil their commitments then it is likely that both students and teachers will remain satisfied and motivated within the teaching relationship. To ensure that both parties fulfil their side of the bargain it is important that from the outset the commitments set are realistically achievable. While students may have preferences for the methods of teaching and learning they experience, it is important that a teacher commits to those that are realistic and appropriate. Throughout any taught module, the fulfilment of the psychological contract by both parties may be monitored. While it may not be appropriate to severely chastise deviations from the core commitments, they should be acknowledged and explanations sought. Findings show that breaches are less likely to have negative reactions if the reasons for the lack of fulfilment are seen to be justified rather than the result of reneging (Robinson & Morrison, 2000).

Conclusions
It is often forgotten in the literature that teaching in higher education is not just “education” but is also “work” from the perspective of the teacher (Cuthbert, 1996). The psychological contract is ultimately a practical tool that has been found to be effective within a variety of workplaces. It is also often neglected that teachers and students form social relationships that have important dynamics that may influence the success or otherwise of those relationships. The above discussion has hopefully demonstrated the value of the concept of the psychological contract to describe a number of important dynamics relating to the teaching relationship and help teachers better manage that relationship. James (2002) points out that concerns have been raised that meeting student expectations merely serves to lowering the level of academic challenge and he also questions whether students are best placed to judge a number of issues, such as curriculum design or pedagogy. However, it is argued that student expectations can be managed
in a way that, while affording a broad student-centred approach to teaching and learning, allows teachers expectations to shape (and to some extent be shaped by) the overall interaction. In this way it is suggested that effective outcomes for both student and teacher will be enhanced.

References
Disciplines and knowing: exploring the implications of disciplinary context for pedagogic practice

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Submitted: March 2010

“The question at issue ... is whether it is better to treat life as though it were an examination paper in arithmetic, where the problems have right answers if only we can work them out, or whether life is better looked on as the artist’s canvas whereon, with such pigments as he possesses, he may freely attempt whatever picture he can imagine.” (Shackle, 1955, p.38)

It is axiomatic in many subject areas that there are fundamental differences between academic disciplines. Perhaps the most (in)famous exposition of such differences was that by the physicist C.P.Snow in The Two Cultures (Snow, 1998 [1959]), where he argued that a growing chasm was opening up between scientists and “literary intellectuals”. In anthropology - the study of cultures - there has been an ongoing debate about whether such study is best conceived of as “an experimental science in search of laws” or “an interpretive one in search of meaning” (Geertz, 2005 [1973], p.5). This echoes Weber’s classic distinction between erklären (causal explanation) and verstehen (interpretive understanding), the former, as applied in developing knowledge of the natural world, being, Weber argued, unsuitable for studying the social world of humans, which required the latter approach.

I have experience of disciplinary differences as both a student and a teacher. My first degree was in biochemistry and I spent several years working as a molecular biologist, before taking a PhD in qualitative sociology. I now teach sociology to Masters students, many of whom have a first degree in bio-science, alongside medical students who are studying Medicine, science and society for their intercalated BSc option. As a teacher witnessing the struggles that students have in moving disciplines, it seemed to me that such struggles went beyond the difficulty of grasping unfamiliar material or engaging with new pedagogic practices. Reflecting on my own transition, I felt that this had involved me becoming, in important respects, a different sort of person, one who has come to know in a different way.

The field of higher education (HE) research, in the UK at least, is pervaded by the language of “teaching” and “learning”, rather than “knowing”. This reflects the dominance of psychology in providing the framework for pedagogic writing (Zukas & Malcolm, 2000, p.4). Teachers and learners are examined as cognitive beings, rather than teaching-and-learning being viewed as a social practice. Where the emphasis has been placed on the knowing, it is on knowledge as a structure (Becher, 1987; Bernstein, 1999; Maton, 2006, 2007) rather than knowing as a process. In this paper, I want to focus on knowing as an active process of meaning making, and to explore the interconnections between specific disciplinary ways of knowing, the characteristics of the knowledgeable person and how the student becomes a person who knows in the disciplinary way. I shall use this analysis to argue that a greater attention needs to be paid to disciplinary context in formulating ways to enhance pedagogic practice.
Approach adopted
To illustrate my thesis, I use examples drawn from my own experiences in laboratory biological science and critical qualitative sociology. In specifying laboratory biological science and critical qualitative sociology, I am being quite deliberate. I am advocating that attention must first be paid to the specific, local context in which learning takes place. This is not to say that it is not possible to make wider generalisations. My argument is rather that such generalisations should derive from an ascending analysis (Foucault, 1980, pp.96-99), an empiricist approach that “derives axioms from the senses and particulars, rising by gradual and unbroken ascent, so that it arrives at the most general axioms last of all” (Bacon, quoted in Hollis, 2002, p.23). Such an ascending analysis will avoid the need for post hoc caveats that are inevitable with analyses that start at the level of the discipline (biology, sociology) or disciplinary group (science, social science) since there is a lack of homogeneity at both levels. For convenience, however, in what follows I use the shorthand “biology” and “sociology” to refer to my two cases. I start by giving an overview of the ways that disciplinary differences and learner differences have been studies in HE research.

The study of disciplines and learners in HE research
The most common unit of analysis in research on disciplinary differences, contra my proposal above, is the disciplinary group: science, humanities, social sciences, professions, applied science etc. Studies have examined differences between groups in, for example, their subject matter (Biglan, 1973a), modes of cognition (Donald, 2002), epistemology (Becher, 1987; Bernstein, 1999), approach to work (research or teaching) (Becher, 1981; Lindblom-Yläne et al., 2006), institutional or organisational characteristics (Biglan, 1973b; del Favero, 2005), development of teaching scholarship (Moses, 1990; Healey, 2000; Lueddeke, 2003) and pedagogic practices (Kolb, 1981; Neumann, 2001; Neumann et al., 2002). The early work on disciplinary differences focused on epistemological or cognitive aspects. More recently, informed by sociological studies of the work of scientific disciplines (Gieryn, 1983; Lynch, 1985; Latour, 1987; Traveek, 1988; Clarke, 1990; Knorr-Cetina, 1999), attention has been given to disciplines as “epistemic cultures” (Knorr-Cetina, 1999) - communities whose knowledge practices are embedded within distinct socio-cultural contexts (del Favero, 2003). This cultural approach has informed work such as that of Becher (Becher, 1981, p.xiv; see also Becher, 1989; 1994) examining “the nature of the linkages between academic cultures (the “tribes”) and disciplinary knowledge (their “territories”)”. It has also been utilised in studies of pedagogic practices within different disciplines (Becher, 1994; Neumann, 2001; Neumann et al., 2002).

When it comes to studies of learning, the unit of analysis (at the opposite end of the scale to the analysis of disciplinary groups) has been the individual student (e.g. Entwistle, 1981; Honey & Mumford, 1992; Ausubel, 2000; Kolb, 2000; Biggs, 2003). This is unsurprising given that a) the majority of the work on learning has been within or derived from cognitive psychology and b) much of it has been concerned with learning as an activity that goes on throughout life, from school (where disciplinary specialisation occurs late and then not fully) through university and beyond. As Zukas and Malcolm have argued,

“there is little recognition of the socio-cultural situatedness of the individual. The learner frequently appears as an anonymous, decontextualized, degendered being whose principal distinguishing characteristics are “personality”; and “learning style”.” (Zukas & Malcolm, 2000, p.8)

These personality traits are “relatively stable across different educational tasks” (Donald, 2002, p.5). While context is not absent it is considered in a generic sense, as, for example, the pedagogic practices that might best accommodate a student’s learning style (Biggs, 2003).}

There is an emerging body of work that has started to look at discipline-specific issues in teaching and learning (Hativa & Marinchovich, 1995; Pollio, 1996; Rust, 2000; Donald, 2002; Neumann et al.,
“For students, education in an academic field is a continuing process of selection and socialization to the pivotal norms of the field governing criteria for truth and how it is to be achieved, communicated and used, and secondarily, to peripheral norms governing personal styles, attitudes and social relationships.” (Kolb & Kolb, 2005, p.26)

However, in this, as in other studies (Donald, 2002; Pace & Middendorf, 2004; Kaartinen-Koutaniemi & Lindblom-Ylanne, 2008) that have focused on the disciplinary context of learning (and in much of this work the “teaching” element of the “teaching-and-learning” dyad takes precedence), the cognitive aspect is again given priority. Any failure of a student to flourish in an academic programme is thus understood as (as Kolb puts it) “fundamental mismatches between personal learning styles and the learning demands of different disciplines” (Kolb, 1981, p.233; see also Pollio, 1996, p.18). The social context is reduced to factors constraining or facilitating the flowering of the individual’s innate ability to learn, rather than the disciplinary culture being foregrounded as bringing about specific modes of learning as social practices.

**Learning as a process of socialisation in the discipline**

I now go on to sketch out a preliminary account of how we could conceptualise teaching-and-learning as a process of socialisation into a disciplinary way of knowing by which the student becomes someone who knows in the way of that epistemic community. I want to preface this section by giving some consideration to the concept of “knowing” that I use. Just as learning is “lifelong” so knowledge acquisition is not an activity restricted to the university environs. My focus, however, is on knowledge acquisition as it takes place within specific epistemic cultures, hence at the university level. Here, I suggest, knowledge acquisition is primarily a matter of learning to think as or see as a member of the community. The student is moving upwards along Bloom’s (Bloom, 1956) taxonomy of educational objectives; during compulsory education the emphasis will have been on acquiring knowledge of facts and the principles of their use, while as an undergraduate the emphasis shifts towards putting the knowledge and skills into action. An analogy is with learning a language, and the distinction between learning the vocabulary and the grammatical rules that allow one to use that vocabulary, and becoming able to think in that language, rather than having to construct sentences in one’s first language and then translate them. This is not to suggest that learning facts and their use ceases to be part of the curriculum (or that there is no attention to higher order skill development in schools), but that it is superseded in importance by learning to “see as” a member of the community. There is a further transition from seeing as to being, that is, to becoming a member of the community. This occurs through postgraduate education, where the student learns to generate new knowledge. Undergraduate education, then, can be conceptualised as a period of becoming fluent in the language of one’s discipline, although not yet fully “native”.

In developing an account of learning to “see as” a member of the epistemic community it is useful to start with a summary of the key characteristics of the two disciplines of biology and sociology, specifically with regard to the skills that teaching seeks to develop in the student and the manner in which it does so. Table 1 synthesises the accounts in the literature (primarily Becher, 1994; Bernstein, 1999; Donald, 2002; Neumann et al., 2002; Maton, 2006, 2007).
Table 1: disciplinary differences in knowing

<table>
<thead>
<tr>
<th></th>
<th>Biology</th>
<th>Sociology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Epistemology</td>
<td>Causal explanation founded on universal laws.</td>
<td>Interpretive understanding through contextual exegesis.</td>
</tr>
<tr>
<td>Attributes of the knower</td>
<td>Logical reasoning – mastery of facts and theories, applying and testing ideas, constructing linear arguments.</td>
<td>Original argument – command of intellectual ideas and how they have been used, (self)critical analysis, creative thinking and fluency of expression.</td>
</tr>
<tr>
<td>Strategies for developing knowledge (in the neophyte)</td>
<td>Linear, cumulative (builds up to contemporary “state of the art” knowledge). Following text books.</td>
<td>Holistic, layering (returns with increasing levels of sophistication and insight). Studying canonical texts.</td>
</tr>
</tbody>
</table>

In Table 1 I have reframed disciplinary characteristic in terms of “knowing”. Rather than considering “skill development” I list “attributes of the knower”, emphasising that these are the characteristics that the established member of the community possesses, and which the new entrant must attain if they are to be welcomed as a good (proficient) colleague. Similarly, in listing “strategies for developing knowledge” rather than “teaching strategies”, I emphasise that biologists (linear, accumulating facts to produce a logical argument) and sociologists (holistic, applying critical analysis to the material to produce an original argument) use to generate new knowledge - although when instructing the neophyte these are demonstrated on existing material in the discipline.

The idea that learning is a matter of acquiring the skills required to perform in the discipline through practice of those skills on established material is familiar from Thomas Kuhn’s study of scientific practice (Kuhn, 1996). For Kuhn, the majority of scientific work is puzzle solving, fitting evidence into the conceptual matrix provided by the current paradigm (Kuhn, 1996, p.175). The student-scientist learns by performing the exemplar, “the concrete puzzle solutions which, employed as models or examples, can replace explicit rules” (Kuhn, 1996, p.175). In the laboratory practical session, the biology student performs an experiment whose outcome is known, using the established techniques of the discipline, and through this performance learns to see as a biologist. Of course in sociology, which is not a paradigmatic discipline, such exemplars do not exist. However, the seminar has something akin to the lab practical about it, in that it is where the sociology student exercises their ability to see like a sociologist, practising critical analysis on canonical texts in the discipline, and developing their ability to argue fluently among peers. As Roth has argued in relation to history, education is less about “transmitting a synthesis of the products of historical scholarship” and more about “modeling the process by which historians come to make research-based knowledge claims” (Roth, 2004, p.3). Learning to “see as” in both biology and sociology involves a large element of tacit knowledge (Polanyi, 1958), learnt by doing rather than acquiring rules for doing (Kuhn, 1996, p.191).

While the becoming a knower in the two disciplines might, then, involve coming to “see as” through “practicing as”, what one becomes when one comes to “see as” is different between biology and sociology. Table 2 summarises these differences, aligning them with the ways of knowing set out in Table 1.
Table 2: disciplinary differences in the knower

<table>
<thead>
<tr>
<th></th>
<th>Biology</th>
<th>Sociology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person</td>
<td>Abstracted – researcher is a neutral conduit through which truth of natural world is revealed.</td>
<td>Implicated – researcher is integral to production of knowledge of the social world</td>
</tr>
<tr>
<td>Characteristics of the knower</td>
<td>Objective. Ability to efface oneself from the knowing. Possession of technical skills for problem solving.</td>
<td>Subjective. (Self) criticality, reflexivity. Ability to argue fluently.</td>
</tr>
<tr>
<td>Techniques for developing knowledge</td>
<td>Development of practical skills through performance of exemplars; learning central tenets of the discipline as objective truths.</td>
<td>Critical analysis of canonical texts; practicing among peers the skills of argumentation necessary to support one’s analysis</td>
</tr>
</tbody>
</table>

The key difference is that in biology the knower as a specific individual is removed from the process of knowing - as evidenced by the way scientists are taught to write in the third person, for it is “essential that the “scientific anyman” could have been the author” (Markus, quoted in Rabinow, 1996, p.179). In performing experiments, the biologist acts as the neutral conduit through which the truths present in the natural world are revealed. This requires a technical competence, as it is only by skilful use of the right method that a true picture of nature can emerge (Woolgar, 1988). It also requires a certain attitude, an ability to be objective (Shapin & Schaffer, 1985, p.49). In contrast, the sociologist is always already implicated in the social worlds s/he seeks to know. Knowledge is perspectival, with what one sees depending on where one sits (Haraway, 1988). The generation of new (original) knowledge is a matter of establishing a new (original) position from which to view the world. One has, of course, to still be seeing the world as a sociologist, but bringing a fresh perspective - adding one’s own distinctive voice to the ongoing debate. The skills the sociologist requires are to be able to first establish his/her own defendable viewpoint (through critical analysis of the work of other and self-critical reflection on one’s own ideas), and second to support that viewpoint through persuasive argument.

**Conclusions: implications for pedagogy - and beyond?**

In both biology and sociology, then, induction of the neophyte into the epistemic community takes the form of learning to see as one of the community, through practice of the skills that are required to be a competent biologist or sociologist. However, there are great differences in how one sees and the person that one must become in order to see like that between the two disciplines. The epistemology of the discipline shapes what it means to be a knowledgeable person, and hence also the route to becoming such a knowledgeable person. I do not want to suggest here that the characteristics of the individual student do not matter. All students will bring with them their own particular orientations to learning. However, the way of knowing required by a particular epistemic community cannot be superimposed on the cognitive development of the student; it has precedence.

The implications for development of pedagogy can be usefully illustrated by considering two examples of research from the recent literature. First, we can consider work arguing that “deep learning” is less prevalent in hard than soft fields (Laird et al., 2008), using measures of deep learning that include “examining the strengths and weaknesses of your own views on a topic” and “included diverse perspectives”. If we situate this analysis in an understanding of the knower as abstracted in hard fields, implicated in soft fields, then it is unsurprising that “deep learning” is less common in the former - which is
not to say that “deep learning” is not possible in hard fields, but that it is likely to mean something different. One measure of such learning cannot be used across all educational contexts. My second example comes from research showing that generic skills such as problem solving and critical thinking are context dependent (Jones, 2009b, a). In history, problem solving is subsumed by critical thinking, the latter being fundamental to the epistemology of the discipline, whereas in physics critical thinking is a technical skill that is necessary for problem solving, the latter being foundational to knowledge production. As such, there is no one-size-fits-all approach to developing students’ generic skills across disciplines. As these examples show, pedagogy is - must be - discipline specific, addressing how best the teacher can “engage with the student through the medium of the discipline” (Kinchin & Hay, 2007, p.49). We can also note the extra challenges that will be faced by students and their teachers when a change of discipline, a change of worldview, is involved.

I would like to conclude by reflecting on some potential wider implications of an approach to academic work that focuses on knowing.vii The dichotomies of teaching/learning and research/teaching are pervasive in the academy. In conceptualising these dichotomies primacy is given to the person (teacher/learner/researcher). Knowledge is conceived of as a product. The academic, in their role as researcher, produces knowledge, which they come to possess. This knowledge is then transmitted from the academic in their role as teacher to the student - or acquired by the learner, depending on whether the prevailing fashion prioritises the teacher or the student. In shifting the emphasis to knowing, as a process, I want to speculate that it may be possible to challenge these dichotomies (cf. Kinchin & Hay, 2007). Knowledge in this conceptualisation is practiced not possessed, and its practice requires certain capacities to be developed in the knowledgeable person. Ways of knowing and ways of being a knower are intimately linked (knowing is a matter of seeing as a ...). Further, as my analysis has suggested, one can conceive of the student as developing their own knowledge through practicing the craft of the discipline, alongside the established researcher who is generating new knowledge utilising the same tools and techniques. Ways of becoming a knower are thus also interlinked - we could suggest there is a web of knowing/being a knower/becoming a knower. Concepts such as “research-led teaching” and “student-directed learning” have recently become fashionable, but it has proved hard to articulate what these ideas mean, let along how they can be promoted. A shift towards a knowledge-centred analysis of academic practices might help us get a purchase on such ideas.

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vI recognise that in taking these examples I am excluding from consideration significant components of the intellectual milieu. In particular, I consider only the subjects characterised by Biglan (Biglan, 1973a) as ‘pure’, not the ‘applied’ subjects. My concern here is with the development of the knower, and while students in applied subject do of course become more knowledgeable, the orientation of such disciplines is to practice - to developing the practitioner who can use knowledge rather than to developing a knower who is a fledgling knowledge generator. Focusing on pure subjects allows me to elucidate the knowing/knower relationship most clearly.

viElsewhere, there have been more successful attempts to integrate the social and psychological aspects of learning (rather than superimposing the former on the latter as a confounding factor) e.g. in relation to children’s early learning (Rogoff, 1990).

viiKolb’s 1981 work mapped his four learning styles onto the Biglan’s typology of disciplines: Hard pure = Abstract reflective; Soft pure = Concrete reflective; Hard applied = Abstract active; Soft applied = Concrete active.
“Think as” trips off the tongue more easily, and is certainly prominent in the literature. There are books on, for example, Thinking Sociologically (Bauman, 1990), Thinking like a Physicist (Thompson, 1987) and How Doctors Think (Groopman, 2007). However, “think as” replicates the cognitive bias of psychological approaches to learning, and for this reason I favour “see as”. “Seeing” is what students learn to do in practice in biology; when a student looks at a blood down a microscope s/he learns to see white cells and red cells, healthy and abnormal (Atkinson, 1995). It has been suggested that our thinking is, in essential ways, perceptual in nature (Latour, 1986; Arnheim, 1969); consider, for example how we affirm that we have understood by exclaiming “Oh, I see” or “I see what you mean”.

This is not a disparagement of science. Indeed, the awesome success of modern science is largely due to its paradigmatic nature. With the central tenets agreed, scientists can get on with working out the solution to concrete problems, without always having to justify themselves from first principles.

This is a competence that anyone, theoretically, can acquire. The “Materials and Methods” sections of scientific journal articles are supposed to provide the information that anyone “skilled in the art” could use to repeat the work. As such, as Snow argued, science is a meritocratic enterprise (Snow, 1998 [1959]).

The following draws on Foucauldian social theory, which I use in my work as a sociologist.

References


Moving Bodies and Minds - The Quest for Embodiment in Teaching and Learning

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Submitted: September 2010

“To teach is to transmit experience” (Irigaray, 2005, p.58)

Introduction
Much of Western education is distinctly disembodied with students being asked to sit still and the teacher is often rooted behind a lectern or glued to the keyboard to move the PowerPoint presentation forward. The body/mind distinction is clearly expressed in what we expect from schools and universities in that they appeal to minds but often disregard bodies. The “embodied experiences of being and doing” (Matthews, 1998, p.327) are so far still a fairly under-researched area in educational research. The field of teaching and learning seems to be dominated by cognitive theories that ignore or at least neglect the bodily experiences of teaching and learning.

The introductory quote of Irigaray (2005) stresses that learning is transmitted experience. This experience itself is socially constructed. Constructivist theories in education following Vygotsky’s (1978) groundbreaking work have regularly pointed to the individualized nature of learning. Theorists in this area have started to play with making this constructed knowledge visible through for instance drawing on visually-inspired learning like concept-mapping (Kinchin et al., 2005). However most of the approaches neglect embodiment. An exception is physical education (PE) which has for some time tried to overcome this mind-body dualism (Armour, 1999). Research has for instance explored body narratives in PE teachers (Sparkes, 1999). The notion of body narratives refers to the idea that we know our bodies through discourses rather than in any unmediated ways. The German language distinguishes between Körper, as the instrumental and objective exterior, and Leib, as the subjective and phenomenological experience. In physical education the emphasis seems to the former which can be dissected and analysed. However, Sparkes (1999) suggests employing narrative ways to understand embodied experiences of the Leib (see also Sparkes, 2003a; Sparkes, 2003b).

Merleau-Ponty (2002) famously argued that we conceptualize through our bodies. Researchers in education (Jarvis, 2006; Jarvis and Parker, 2007) as well as management (Yakhlef, 2010) have argued that learning is a much more holistic experience encompassing the senses as much as the brain. Others have suggested that the body itself can be a source of learning and insight (Beaudoin, 1999; Matthews, 1998). In theatre studies, material arts as well as yoga are recommended to overcome the body/mind dualism (Zarrilli, 2008). However, research that is taking embodiment in teaching and research seriously is still scarce.

This paper makes a contribution towards understanding embodiment in teaching and learning. This paper will do this by drawing on two examples of embodied learning and teaching. First, it is explored how teachers in business schools are prepared to teach the case method. The focus here is mainly on teaching rather than learning. Second, it is highlighted how yoga transmits embodied knowledge. I here focus on the interaction between teacher and learner and how this influences learning outcomes. I finally offer a
tentative research agenda to explore embodiment in teaching and learning. I will understand management and yoga through a practice-based lens (Billett, 2004; Corradi et al., 2010; Raelin, 2007). Much of this paper is based on what could be described as auto-ethnography (Muncey, 2010) where the researcher’s embodied experiences are a source of insight (Lea, 2009; Smith, 2007). In this paper I will reflect on my own experiences of learning to teach management and yoga. The comparison of these rather unusual areas, will contribute to the exploration of new ways of learning and teaching in higher education.

Embodiment in Management Teaching

Business schools are often seen as having a more vocational character than other disciplines taught in university (Bennis and O’Toole, 2005). Business schools are supposed to develop their students to be business leaders of the future and to teach them in such a way that they can enhance business practice (Ghoshal, 2005). Rather than reading theoretical books, most business schools today teach MBA students based on the case study method developed by Harvard Business School (Argyris, 1980; Barnes et al., 1994; Ellet, 2007). The case study method follows a problem-based learning approach (Stinson and Milter, 1996) that is also used for instance in medicine (Barrows, 1996). The case study method emulates real-life experience by providing a written text on a business situation. Students are asked to read and prepare the cases to discuss them with the professor in class. Most of the class is centred on courses of action and their consequences. This is thought to develop students’ practical thinking and help them to navigate real-life business situations. While the case study method is not without criticism (Argyris, 1980), it is used in most business schools around the world because it provides a “fundamental emphasis on the practical, the applied, and on learning through involvement and doing” (Osigweh, 1987, p.122). This involvement and doing could be seen as an embodiment but, as I will show, the embodiment mainly seems to entail the teacher rather than the learner.

Teaching the case method is very different from delivering a more traditional lecture. A normal class starts with the lecturer asking a question and students commenting on it. These questions centre around what happens in the case, what are the challenges and what would you do in that situation (Ellet, 2007). The teacher normally collects comments and writes them on a white board, which makes this approach to learning much more interactive than traditional lectures in higher education. The teacher is much more of a discussion leader than a lecturer. The faculty training in a business school would entail training on how to discuss cases, how to deal with difficult students and several sessions of individual and group voice coaching.

During such training, it was common in my experience that faculty members are encouraged to develop a presence in the room. This is very similar to how management gurus engage their audiences. A management guru would generally have a lavalier microphone and walk around on stage often interacting with the audience. This connection with the audience is referred to as being an authentic or kinesthetic speaker (Morgan, 2008). To become a kinesthetic speaker, it is important to understand the power of non-verbal communication to build a connection with the audience. This connection with the audience is established through being present in the physical space, such as walking the stage or room, walking into the audience and back, gesturing and developing a personal connection through telling a personal story.

Faculty trained in the case method are asked to see the lecture theatre as a stage and to walk around and stand in different places to engage the audience. The faculty member is trained to be a performer. The whole process is embodied and developing an awareness of the body is encouraged. It is for instance not usual to ask faculty members to engage in relaxation techniques such as the Alexander Technique to relax before teaching a session. The body is used in teaching, particularly by male management educators through performances, such as posture, leaning closer to the student, making sweeping arm movements, being confident, strategic use of the voice and certain forms of dress that convey authority (Sinclair, 2005; Swan, 2005). A prominent example is management guru Tom Peters. This alludes to the fact that the normalised bodies in management education are those of men (see also Eagleton, 1998; Kelan and Dunkley
Jones, 2010; Perriton, 1999; Sinclair, 1997). This means that only a narrow range of experiences is allowed for sharing.

So far, I have mainly focused on the embodiment of the teacher in the case study method. However, what happens to the learner? While the teacher performs the discussion of the case study and encourages class participation through using his/her body as an instrument, the class itself cannot move much. Apart from making oneself visible if one has a contribution to make or the occasional role play, most of the time students are confined to their own seats. Even though the learning experience in itself is not very embodied, the case study method is seen as a preferred way of teaching given that the material is brought to life by a narrative scenario and an embodied teacher. Advantages of the case method include asking students to engage with the material through exposing the learner to real-life scenarios (Osigweh, 1987).

On the other hand, this encourages a rather static view of change assuming that the future events students are going to encounter emulate the past and also the tendency of developing group think in the class situation where other points of view of the world are excluded (Osigweh, 1987). What the case method achieves is that students gain confidence to make decisions in the business world. Through working with case studies and finding a solution, they do not necessarily develop universally applicable knowledge, but they gain confidence in their decision making. One could argue that such confidence is not purely cerebral but also embodied.

While there is little research that explores the embodied effects of the case method, such an approach might highlight a perspective that has so far been neglected. In this section, I have shown that teaching the case method is an embodied approach at least from the perspective of the teacher. The learner in contrast has a rather cognitive experience and is often not encouraged to be embodied. I will now contrast this type of learning to an area where the learner is more embodied.

**Embodiment in Yoga Teaching**

Focusing on yoga is a novel way of exploring embodiment in learning and education and teaching yoga is rarely considered when teaching management. The notable exception is Sinclair (2005) who combines being a management professor with being a yoga teacher. She writes about how yoga can add a new dimension to management education in which greater awareness of the body emerges. Yoga creates a heightened awareness of the body and through yoga the body itself can become an instrument for learning and insight. I will explore how yoga as a practice of embodiment is transmitted.

Yoga is a practice of embodiment where embodiment is achieved through allowing energy, or *Prana*, to flow through the body (Rea Bailey, 1997). Yoga teachers have developed various ways of showing students *Prana* and I mainly draw on Rea’s understanding of Prana as transmitted in her teacher training courses (Rea, 2009; 2010). *Prana* is an abstract concept that is often hard to grasp for Westerners. Yet the understanding of *Prana* is central for doing yoga. Without awareness for *Prana* yoga is just another physical exercise.

Yoga teachers use different ways to transmit the idea of *Prana*. A yoga teacher might encourage his/her students to visualize energy or a color in a yoga class. A typical instruction would be to imagine a white light shining through your forehead, the energy centre *ajna chakra*. Another way of transmitting this knowledge is through sustained focused on the breath in yoga. Every *asana*, or pose, is practiced in synchronization with inhalation and exhalation. Focusing on inhalation and exhalation is a way to experience *Prana*. A third way of developing this awareness of how energy flows is through adjusting the student. Hands-on assists or adjustments are given by the teacher who gently shows the students how the position can be performed. Normally students stretch much deeper once they understand how the energy flows. These adjustments can be gross or subtle but are always experienced through the interaction between the embodiment of the teacher and of the learner (Smith, 2007). Yoga teacher trainees usually practise these hands-on adjusts with partners during their training to experience how it feels to
give and receive these adjustments. Rea (2009; 2010) adds another method of feeling this energy. This is done through the vinyasa, which here means to flow. This concept is based on the teachings of Sri Krishnamacharya and his son T.K.V. Desikachar (1999). The student is encouraged to experience the energy of a pose through flowing between two poses, pulsating in one pose or using a movement of a body part to enhance the energy flows the posture.

In order to encourage student’s advancement, a vinyasa krama system is used (Rea, 2009; 2010). In this system poses are structured in a progressive way. This is very similar to the concept of scaffolding used in education studies (Vygotsky, 1978; Wood et al., 1976; Yelland and Master, 2007). However rather than appealing to cognitive and problem solving skills, this type of scaffolding means to teach the body rather than the mind. Vinyasa krama means that a pose is repeated at various points in the class with increasing difficulty. Through sequencing a yoga class to include various poses that help with a particular peak pose, students will not only see the connection between the poses, their bodies will also learn how to move from one to the next. If a teacher initiates the flow of the yoga class in such a way, the student will be able to achieve a much more advanced position than she/he normally would. For example, I can achieve many positions only when working directly with my yoga teacher who prepares my body for this pose through a specific sequence. I know how it looks and I received instruction of how to get into it various times, but only when following this sequence I am able to perform the pose. This is often combined with surprise and shock when my mind literally tries to catch up with what my body does. This is really where the power of embodiment lies: the body is suddenly able to perform a pose that the mind would not think is possible. For this, a person who really understands yoga and can sequence yoga is needed, which highlights the role of the teacher in initiating embodiment.

This means that the body becomes a source of knowledge. In his review on an ancient Indian material art, that shares much with yoga, Zarrilli (2000) shows how practising this material art creates a heightened sense of awareness of the body. The whole body becomes a sensing instrument. Similarly, in her exploration of yoga, Irigaray (2005) shows how breathing, so essential in yoga, creates embodiment and an awareness of the body. The body is seen as divine and treated as such is able to unfold its spiritual and knowing potential (Irigaray, 2005). Interestingly, Irigaray also talks about learning and teaching stating that:

“[e]ducation in the West is then assimilated to apprenticeship or to the reading of texts...[i]t makes the teacher an aseptic and supposedly neuter vehicle of the culture that he/she transmits...to learn, in the best of cases, is to learn from someone’s experience. To teach is to transmit experience...[f]or the transmission of culture to be correct, it is necessary to notice the differences between what women’s experiences can teach us and what men’s experiences can teach us.” (Irigaray, 2005, p.58f)

Overcoming the body/mind dualism is to practise embodiment and this is best learned from someone who shares his/her experience on embodiment in a gender differentiated way. While I would not entirely subscribe with Irigaray’s différence view (Kelan, 2009), I think it is important to consider which bodies and experiences are normalised in education. As teachers, we can transmit the importance of embodiment through the teaching tools we use and the learner will learn from our experiences of embodiment and incorporate and integrate this with his/her learning. This learning is of course also shaped by other elements.

Towards an Embodied Teaching and Learning
In this article I looked at management education and yoga to explore embodiment in teaching and learning. There is a scarcity of research that would go beyond seeing students and teachers as minds rather than bodies. In this concluding section, I would like to offer a research agenda for areas that need further exploration.
A first area of research could explore the effects embodiment has on learning outcomes. There is some research that suggests student acting as a way to bring the body into the classroom (Matthews, 1998; Meyer, 2001). I have shown that in most cases students are not encouraged to be embodied in the management classroom. However, in management education improvisational theatre is said to increase students creativity and ability to work in teams (Moshavi, 2001). Small enacted group exercises are also used to develop reflexive potential in management practitioners to help them to understanding how inter-subjective realities are constructed (Cunliffe, 2004; see also Meyer, 2001). However, research evidence on actual learning outcomes of embodied approaches to teaching are currently scarce.

Second, there is the assumption, particularly in relation to the case method, that an embodied teacher will lead to embodied learning. However, a teacher can theoretically deliver a very embodied performance without students sharing this experience. In my own teaching practice, I have noticed that students are almost reluctant to take their embodiment seriously. When I ask students to change seats in class or if I ask them to do some stretches very few students do this. Many of them seem to believe that education means to sit still, which is of course what they are told from primary through to higher education. Students are trained to focus on the mind. However, there are ways to incorporate embodiment. When I ask students to deliver presentations, I share breathing exercises with them and I tell them how to stand and where to look. Students are keen to take that up. By breathing properly they are much easier to understand and like with other somatic approaches (Beaudoin, 1999) students also relax more. Further research needs to explore if an embodied teacher leads to better learning outcomes and how an embodied teacher can encourage students to be embodied.

Thirdly, using the body as a type of scaffolding in yoga might be a novel approach of bringing the body into teaching. In my own teaching practice I have used recurring concepts meaning that students would meet a concept I introduce three times over the course of the module in different variations with increased complexity. I use for instance the concept of inclusion in the theoretical part of one of my modules on diversity offering a definition. I then come back to the concept in the second part of the course when I discuss the concept in relation to specific areas. Finally, students meet inclusion again when we discuss practice-based examples at the end of the course. A concept like inclusion can be easily understood through dramatising it and I ask students to develop short scenarios based on inclusion and exclusion that I ask them to enact in class. While complexity would not increase, I would at least offer an alternative access to the rather cognitive approaches used in higher education. Such approaches are similar to the well-researched area of role playing in education. Further research needs to explore how the body can be involved through scaffolding in learning.

If embodiment is taken seriously, what does this mean for teaching strategies in higher education? Much of higher education teaching and learning has focused on transmitting knowledge through lecturing and reading. Recent approaches have started to re-invent higher education by focusing on the visual through videos or concept-maps. Another avenue for higher education might be to explore embodiment in teaching and learning. Whilst the benefits of such an approach have not been well-documented, anecdotal evidence and some pilot studies have suggested that more embodied approaches like including theatre can enhance learning. Bringing the body into higher education allows using the body as a source of insight. It could be a way for sharing experience in a new way. Such approaches will assist students to make sense of an increasingly dynamic economy and society.
References


Islamic Studies: Discipline or Specialist Field? Implications for Curriculum Development

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Submitted: December 2009

Rationale
The present examination of curriculum development in Islamic studies is informed by my earlier research on the study of Islam as a field of scholarly investigation and my initial experiences as a lecturer in Islamic studies in the Department of Theology and Religious Studies at King’s College London, responsible for offering undergraduate and postgraduate course modules for existing programmes and the conceptualisation, design and implementation of a new postgraduate taught degree course on the subject. Since the undergraduate modules are intended for non-specialists, i.e. students with little or no prior knowledge of Islam as a religious tradition and not majoring in Islamic studies, the teaching is designed to provide a survey of key aspects of Islam as a religion and the Muslim world as a civilisation, so as to provide an integral and multifaceted introduction of the Islamic tradition. Key considerations in regards to the future development of postgraduate modules is to enrich existing programmes by offering additional electives, while the main incentive for the new taught MA is having identified an appropriate “niche market” within British Higher Education, which has not yet been catered for by other programmes at either King’s College London or other institutions. Consequently, the focus and onus in curriculum development is very much content-driven, that is on information and data as a “product” delivered by the teacher.

A complicating factor is that Islamic studies, as a scholarly field, has been the subject of both outside scrutiny and introspection by practitioners. This has raised some generic concerns regarding the status of the field. In relation to curriculum development this raises the question whether Islamic studies must be considered an academic discipline in its own right or a specialist field open to interdisciplinary treatment. I consider this reflection so crucial for a well-informed approach to curriculum development that I have made it the subject of this investigation.

This article only gives a shorthand version of my findings in both my postgraduate work in academic practice and earlier research. After establishing what we understand by curriculum development, there follows a brief sketch of the current state of affairs in the teaching of Islamic studies as a subject in British Higher Education and my earlier investigations of Islamic studies as a scholarly specialisation. Before trying to relate these findings to some earlier contributions to conceptualisations of curriculum development and change, as well as exploratory accounts of academic practice of fellow Islamicists, I will expand into a contemplation on the consequences for curriculum development by embedding it in Becher and Trowler’s seminal study on academic cultures in order to come to an informed point of departure for my own contributions to curriculum development.
Curriculum: Understanding, conceptualisations, definitions

When discussing the issues of curriculum design, development and change in a generic sense, Barnett et al (2001, pp. 435-6) and Fraser and Bosanquet (2005, pp. 269-70) have noted that academics tend to be rather cavalier in the use of the term “curriculum”. Drawing on their common understanding, “curriculum” is actually used quite randomly to refer to three levels on which teaching and learning can be considered:

1. The basic level on which teaching is actually delivered, i.e. the course/module/teaching unit.
2. Concrete study programmes leading to a discrete degree
3. Generic fashioning of transmitting knowledge in a given academic specialization which also accounts for underlying questions of epistemology and power structures

These understandings from the perspective of the academic providing teaching are almost entirely content-driven. In their phenomenographical examination of curriculum understandings Fraser and Bosanquet expand the research so as to include the other stakeholder - the student - as well. This gives them four slightly different categories of “curriculum”:

Category A: The structure and content of a unit (subject)
Category B: The structure and content of a programme of study
Category C: The students’ experience of learning
Category D: A dynamic and interactive process of teaching and learning

In the context of the intention to examine the relations between a content-driven approach to the teaching of Islam and the state of affairs in the field of Islamic Studies, I suggest that here curriculum is understood on a generic level (level 3), with an emphasis on safeguarding the integrity of structure and content on both the programme and unit level (Categories A and B).

Islamic studies: A field in flux

With the current intense media scrutiny of Islam and Muslims, also the concern for Islamic studies as an academic specialisation within British universities has also intensified, claiming the attention of specialists working in that field and those involved in higher education administration, as well as policy makers involved in internal security, the integration of minorities, and community integration. The time frame of just three years, no less than six sizeable conferences have addressed Islamic Studies as a subject in British higher education, including two consultations initiated by HEFCE, the main funding body of this field in England.

However, scholars of Islam have reflected for much longer on the state of affairs in their field, especially in the wake of Edward Said’s 1978 bombshell Orientalism; a scathing critique on the political agenda underlying classical “Orientalist” scholarship and the propensity towards essentialisation through its historical-philological approaches to the study of cultures and religions of the East, in particular, Islam and the Muslim world. On closer inspection, however, it becomes evident that self-critical reflections by Islamicists on their own field of specialisation actually predate even Said’s ideologically charged critique of the study of non-Western cultures and religions.

For my doctoral theses, I revisited this contentious field, examining Islamic studies in relation to other relevant specialisations such as the (generic) study of religions and area studies programmes. In reference to the troublesome ménage-a-trois between Islamic Studies, area studies programmes and the generic field of religious studies, I have characterised these liaisons as “awkward”. My conclusion was that, to adapt its approaches to both research and teaching in a rapidly changing environment, Islamic Studies must - to push the metaphor a bit further - become more promiscuous, as it can no longer stay faithful to the centuries-old marriage with its historical-philological partner.
This means opening itself up to interdisciplinary approaches developed in other fields of religious studies and to a more global approach, transcending the area studies frameworks in which it finds itself often confined to Middle Eastern studies.

**Positioning Islamic studies in the context of cultures of academic disciplines**

To help translate the findings of developments in Islamic studies into a set of implications for curriculum development, I have tried them to Becher and Trowler’s now classic study of Academic Tribes and Territories: Intellectual Inquiry and the Culture of Disciplines (2001). The book’s concern with disciplinary epistemology and the phenomenology of knowledge, as well as its contention that academic engagement and narratives with specific topics constitute “important structural factors in the formulation of disciplinary cultures” resonates not only with my own research on such developments in Islamic studies, but the repercussions also extend to curriculum development and change (Becher and Trowler 2001, p. 23). The authors’ point of departure is the contention that the rapid and vast expansion of scholarly knowledge is reflected in three processes:

- Subject parturition: new fields evolving from older ones and gradually gaining independence
- Subject dispersion: growth of disciplinary areas to cover more ground
- Subject decline (Becher and Trowler 2001, pp. 14-5).

In spite of these forces of specialisation, Becher and Trowler see a meshing of specialisms leading towards a collective comprehensiveness of “interlocking cultural communities” (16-7). Consequently disciplines in higher education are acquiring a “borderless” character (3). To my mind, it is exactly these kind of trends that are impacting on Islamic studies. In finding ways of refashioning academic fields, these must be taken into account when rethinking the curriculum.

Such border shifts evince that “the concept of an academic discipline is not altogether straightforward” (42). Although mutable and at times engaging in friendly relations with others, disciplines exhibit a degree of continuity through “recognizable identities and particular cultural attributes” (44). For that reason, Becher and Trowler maintain that the two camps identified in regards to cultural production in general are also active in academia. On the one hand, there are the “culturalists” who “place more emphasis on context-specific socialization and learning within “communities” of practice”. On the other, we find the “constructivists” who - inspired by postmodernism - “tend to stress the role of individual agency in identity and cultural construction” (Becher and Trowler 2001, p. 47). In fields which deal with core constituent elements of cultures, such as religious studies, it is important to account for such contrasts when developing and designing curricula.

The complexity of such developments is elaborated in a chapter entitled, “Overlaps, Boundaries and Specialisms”, in which it is explained that even if disciplinary classifications are not cast in stone, “some borders are so strongly defended as to be virtually impenetrable; others are weakly guarded and open to incoming and outgoing traffic” (59). Demarcations of one disciplinary perspective from another can be governed by (1) distinctions in style or emphasis (i.e. history vs philosophy); (2) a mutually agreed “division of spoils” (physics and chemistry); (3) distinctions in conceptual frameworks (sociologists and anthropologists) (60).

Given that generally “a considerable amount of poaching goes on across all disciplines” (59), such “sharing of the ground […] can lead to a convergence rather than a separation of interests” (60), Becher and Trowler cite scholars of modern languages as an example of academics who are “hospitable to itinerant theories from psychology, sociology or structural anthropology”. The also refer to the leading anthropologist of religion, the late Clifford Geertz, who identified a shift in culture and “reconfiguration of social thought” bringing humanities and social sciences closer together in their intellectual kinship (2001, p. 62).
As my earlier research has shown that is also true for Islamic studies. Rather than merely recognising such developments, some practitioners in that field have taken an activist stance in this regard in order to resolve counterproductive differences between disciplines noted by Barry (1981) or closing the large gaps between disciplines identified by Wax (1969). In an attempt to do away with disciplinarity- and departmentally-based structures rife with the tribalism, centrifugal attitudes and artificial alienation and distance that mar knowledge production and transmission in academia, they embrace Donald T. Campbell’s advocacy of a new notion of a “comprehensive, integrated multiscience or omniscience”, accepting his - and Wax’s - argument that “the true basic unit of intellectual organization, is the specialist field”, where “the closest contact is achieved between human understanding and the realm of epistemological reality it seeks to explore” (Becher and Trowler 2001, p. 64). Aside from Campbell’s “fish-scale model of omniscience” (2005), other characterisations for this specialism-oriented approach are “networks of overlapping neighbourhoods” (Polanyi 1962), and fields interlocked in a “honeycomb structure” (Crane 1972).

**Islamic Studies or Study of Islam? Discipline or Specialism?**

In regards to Islamic Studies, the realisation of interdisciplinarity as the hallmark of what can indeed be regarded as a field of specialisation rather than a distinct discipline, did not really take hold until the 1960s. Until then, Islamicists were scholars of Oriental languages with a solid grounding in the philological-historical approach to texts in Arabic, but also Persian or Turkish, and to a lesser extent, Urdu, Malay, Swahili, and others. Only very few had an interest or expertise in what was then variously called history of religions, comparative religion, or phenomenology of religion, but which has since then developed into the generic field of religious studies/study of religions. This was due to mutual misconceptions regarding each other’s field: Islamicists regarded the religionists as students of little tribal or archaic religions whose theoretical models had nothing to offer to Islamicists, religionists often felt intimidated by the high levels of linguistic competency of Islamicists, required to engage in the historical-philological research of texts, which simply limited the available time to engage in theorising (Waardenburg 1995).

The recent publications by Suleiman and Shihadeh (2007) and Izzi Dien (2007), are very helpful texts for establishing how the field is conceived in British Higher Education because they still evince how persistent the “Orientalist” approach is as both affirm that Islamic studies remains grounded in firm knowledge of Arabic.

Another consequence of this particular linguistic focus has also resulted in a geographical concentration on Middle East and North Africa - the MENA countries. Aside from the question whether Islamic studies should remain an “Orientalist” field or be better integrated into study of religions/religious studies, this also raises the issue of the relationship between Islamic studies and area studies programmes. Due to the linguistic focus, Islamicists tend to be predominantly associated with Middle Eastern studies and, to a much lesser degree, with South, Southeast Asian Studies - notwithstanding the fact that South Asia is home to close to half a billion Muslims and that one in every five Muslims in the world lives in Indonesia. Whereas area studies programmes as non-disciplinary specialist fields usually place a high value on interdisciplinarity, concerns have been raised that Middle East specialists are in danger of “falling through the cracks”, i.e. are not recognized as full peers by either Orientalists or fellow scholars from established disciplines in the human sciences, such as political scientists, anthropologists, sociologists, and historians (Binder 1976).

Aside from all these differences of opinion among specialists working in the field, finding satisfactory ways of teaching Islam within the framework of meshing multidisciplinary approaches into a fish-scale model, interlocking honeycomb structures or overlapping neighbourhood networks is exacerbated by an endemic lack of faculty. Here the figures from the USA are more exact than those available for the UK. In 2003, Brannon Wheeler noted in the US there are an estimated one thousand undergraduate departments and programmes in religious studies, many of which offer courses or modules on Islam. However, there are only roughly 100 scholars with joints specialisations in Islamic Studies and Religious Studies. In fact specialist
positions in Islamic studies in 2003 did not nearly approximate the positions, say, in Jewish Studies. In fact, in most religious studies departments there is only a “token” Islamicist covering the whole field (Wheeler 2003, p. v-vi). While - in the absence of concrete figures on faculty - in the British case we must rely on anecdotal information, my own experiences confirm a comparable situation, whereby one specialist must:

1. cover a geographical area stretching from Morocco to Southern Philippines, inhabited by 1.2 billion people
2. deal with the histories of these culturally diverse regions as well as the situations in contemporary Muslim societies
3. must provide introductions to subspecialisations such as exegesis of Scripture; the equivalents of theology; philosophy; and - in the case of Islam very important - law; the more experiential expressions such as mysticism or Sufism; popular of folk religious practices in the Muslim world; the role of Islam in society or political Islam. What is implied is that the Islamicist is expected to be, at one and the same time: a hermeneutician, theologian, philosopher historian, ethnographer, political scientist, and legal scholar. An expectation that would never be seriously entertained in any other specialist field.

**Implications for curriculum development in Islamic Studies**

A final point to take into consideration from Becher and Trowler is that, with the shift from disciplinarity to specialism, and with Islamic studies drawing on various disciplines form the humanities and social sciences, the findings of Becher and Trowler would warrant a characterisation of Islamic studies as a “soft” specialism, given their definition of the humanities as “reiterative; holistic (organic/river-like); concerned with particulars, qualities, complication; personal, value-laden; dispute over criteria for knowledge verification and obsolescence; lack of consensus over significant questions to address; results in understanding/interpretation” (Becher & Trowler 2001: 36).

As for the knowledge it produces, Islamic studies can be conceived as producing both “pure” and “applied” knowledge (the latter not only by social science projects but also the publication of critical text editions or translations of primary material). More ambiguous is the dichotomy between convergent and divergent ways of knowledge production. When holding on to the “Orientalist” notion of Islamic studies, it can be considered as convergent, a philological-historical discipline with its own methodology history. However, advocates of interdisciplinarity would prefer to qualify it as a divergent specialist field. The above discussion regarding the state of affairs in Islamic studies confirm Becher and Trowler’s general observation that, regarding the people-to-problem ratio, there are few if any what they refer to as “urban groupings” in the field of Islamic studies, such as one finds in history, modern languages, economics, sociology, geography or academic law (Becher and Trowler (189)). On the other hand, the study of Islam does share with history, for example, a “catholicity of coverage and relative absence of theoretical divisions (in that it manages to remain large atheoretical)” (190).

In terms of curriculum development these characteristics would translate into the earlier noted integrative focus on the structure and content of programmes and modules (“Category A” and “B”).

Shifting to the conceptual approach of curriculum change developed by Barnett et al., (2001), its grounding in the postmodernist theoretician Lyotard’s idea of performability suggests that a properly designed curriculum balances three interlocking domains: knowledge, action and self. As a specialism located in the human sciences field the study of Islam will privilege “discipline-specific competence” categorized under the rubric “knowledge”, while there will be only limited integration with the “action” domain (438). A much more contentious issue in the case of a specialism dealing with religious subjects is the impact of learning on the self. If we take Paul Tillich’s definition of religion as dealing with matters of “ultimate concern”, it becomes understandable how the teaching of religion can potentially impact on perceptions of self and identity. Not surprisingly then that issues such as the insider/outsider perspective
(McCutcheon 1999) or the place of faith in the classroom (Barbour 2009) are recurring themes in the thinking about the teaching of religion.

On a more concrete level, even with the recognition of fields of academic specialisation as a more suitable taxonomy than disciplines, there is still the inherent multi-dimensionality of subject-based, methods-based, and theory-based specialisms that need to be addressed when it comes to curriculum design. A helpful pointer in the right direction is provided by Mark C. Taylor, a theorist of religion with a generic interest in HE. His advocacy for deregulating and restructuring goes even a step further than recoining academic disciplines into specialist fields. Based on the premise that “responsible teaching and scholarship must become cross-disciplinary and cross-cultural”, Taylor declares separate departments as obsolete and he proposes instead “a curriculum structured like a web or complex adaptive network” (Taylor 2009).

Both the abstractions of Barnett et al., (2001) and the more concrete conceptualisations by Taylor suggest a comparable set of shifts:

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<th>Emerging curricula</th>
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<td>Pure</td>
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<td>Proposition-based learning</td>
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While appreciative of Fraser and Bosanquet’s stress on the interaction between instructor and student, and Barnett et al’s use of the concept of performativity and the interfaces of acquiring knowledge, attaining capabilities, and personal development, for the type of introductory survey courses on offer in the TRS programmes, the focus and onus in curriculum development is almost unavoidably on the “product” and consequently on the teacher.

This orientation is also supported by the findings of contributors to the volume Teaching Islam, which was published by the American Academy of Religion (2003). While using explanations used in the study of religion to contribute to our understanding of Islam, Wheeler identifies “four different institutions” that must be included in introductory courses in Islam: prophethood, canon & law, ritual, society and culture (Wheeler 2003, pp. 3-4). Reinhart’s “matrix” of Qur’an, the figure of Muhammad, and a historical narrative combating “phenomenal and geographical essentialism” has a similar point of departure and direction (2003, pp. 23-35). This approach does not go unchallenged, because of the transience of our technological age, Tazim Kassam has observed that “what is old, ancient, and in the past has lost its cultural caché [sic!] and hold over the imagination and teachers have to work harder at restoring a sense and love of history” (Kassam 2003, p. 197).

However, that does not mean a total disregard for the student perspective. On the contrary, curriculum change - in the modest sense of fine-tuning the modules on offer - is very much driven by structured
end-of-course feedback exercises and teaching evaluations, which students are requested to complete for all modules. Tutorials and feedback on complete coursework can also help improve the generic objectives of modules in regards to transferable skills and imparting applied knowledge.¹⁶

**Conclusion**

In view of both the above considerations and my own teaching brief at King’s College London providing undergraduate modules on Islam as electives in existing degree courses offered by the Department of Theology and Religious Studies, I have developed my own adapted understanding of “curriculum”, using it as a reference to “a set of modules on Islam introducing students to Islam as a religious tradition, surveying aspects of its history, doctrines and wider cultural heritage from its “inception” until the present day”. Together with the conceptualisations derived from the literature discussed above, it constitutes the foundation in which my own approach to curriculum design, development and change is grounded.

¹In the Spring of 2006, Higher Education Minister Bill Rammell stirred things with accusatory piece that campuses are hotbeds of Islamic radicalism and that programmes need improvement. (Times Higher Education Supplement, 19 May 2006). He then Commissioned Dr. Ataullah Siddiqui to write report on state of affairs, which was presented to Rammell, in 2007, under the title Islam at Universities in England: Meeting the Needs and Investing in the Future, but is generally referred to as the ‘Siddiqui Report’.

²Islam and Higher Education Conference (1) in Birmingham (January 2005); SOAS hosts The State of Arabic and Islamic Studies in Western Universities Conference (November 2006); The University of Edinburgh organises and hosts Islam on Campus Conference (December 2006); Roundtable meeting at Islamic Studies Centre in Oxford (February 2007). After the government has declared Islamic Studies a ‘strategic subject’ HEFCE is instructed to ‘explore, with the help of experts in the field, possible areas where [it] might be able to offer appropriate support’. HEFCE organizes the Islamic Studies Seminar Islamic Studies: Current Status and Future Prospects (November 2007); and the Conference, Islamic Studies: The Way Forward in the UK (April 2008).

³Cf: Abdel Malek (1963); Adams (1967); Irwin (2006); Varisco (2005).


⁵cf. title of the 2006 SOAS conference The State of Arabic and Islamic Studies in Western Universities Conference, where most Islamicists work in the Near and Middle Eastern department.


⁷This article has since then been expanded into a short monograph or manifesto on the future of higher education, published under the title Crisis on Campus: A Bold Plan for Reforming Our Colleges and University (2010).

⁸“The course must be carried, I think, by some kind of narrative, and in the effort to de-essentialize the teaching of Islam, I have found a historical narrative to work best’ (Reinhart 2003, p. 26).
Cf. also “To make the content of my course dependent upon my objective in teaching the course is to make the content justified not from a historical or factual but rather from a pedagogical perspective. This means that I want to know first not what I am teaching but why: not what facts I need to impart but what skills I am helping students develop as part of their liberal arts education’ (Wheeler 2003, p. 14).

References


Teaching clinical skills in psychiatry: What “evidence base” or educational theory may help inform this?

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Submitted: December 2009

“There are few clinical tasks in all of medicine and mental health more complex, nuanced, and of immediate consequence to the care of our clients than clinical interviewing. And there are few clinical tasks more daunting to learn.” (Shea & Barney, 2007, p.e1)

Introduction
Psychiatrists increasingly practice evidence-based medicine but where is the evidence to inform their teaching activities? This is a question I became more interested in whilst teaching clinical skills to psychiatric trainees at Guy’s Hospital. Whilst I was aware of a body of evidence to guide my clinical work, I had much less awareness of what evidence or theory I could base my teaching on.

This may not be unusual in my profession. Although senior psychiatrists have an important role teaching trainees, they often do so as “willing amateurs” (El-Sayeh et al., 2006, p.184). Many have had little exposure to educational theory, and some may value quite different teaching principles from educators (McLeod et al., 2009). In contrast to clinical work, teaching may still be considered an activity largely driven by “intuition and tradition” (Van der Vleuten et al., 2000, p.246).

So what evidence or theory is there to help teach trainee psychiatrists valuable clinical skills? This is the central question that I aim to address in this essay.

To achieve this, I will first highlight the importance of clinical skills to psychiatric practice. I will then discuss clinical skills learning and how this may be understood using educational theory. I feel that this is an important prelude to considering actual teaching techniques; learning remains the objective even if the teaching does not always achieve this. Following from this, I will discuss how clinical skills can be taught (and assessed), with particular reference to simulation methodology. Finally I will reflect on what I have learnt on this subject.

The centrality of clinical skill to psychiatry
What is a “clinical skill”? I was surprised that despite an extensive search of the literature I was unable to find a satisfactory definition. Despite this, many people might consider the particular skills that doctors use for investigating and treating patients as “clinical” in nature. So, measuring blood pressure might be a specific example of a clinical skill.

Psychiatric practice relies less on such practical techniques, and more on communication and interpersonal skill. However, trying to delineate these skills more precisely can be challenging. As the authors of a survey in the 1980s highlighted - “...psychiatrists, in common with many other doctors, like to think of their skill as an ‘art’ which is not amenable to scientific analysis” (Creed & Murray, 1981, p.392). Others may argue (Schön, 1987) that it is precisely this “artistry” that we should attempt to capture and understand better.
Despite this difficulty with definition, I would contend that excellent clinical skills are essential to being a good psychiatrist. Unlike other branches of medicine, specific tests for conditions rarely exist and so a good history and mental state examination are key for making an accurate diagnosis. Assessment interviews differ from other specialties in their use of “a wide range of biological and psychosocial data, and in their attention to emotional reaction of [the] patient, and in the process of interaction between [the] patient and interviewer” (Prasko & Hoschl, 2007, p.s212). Psychiatrists ideally examine problems holistically, using a “bio-psycho-social” approach (McClain et al., 2004). Dealing with stigma and having legal powers of treatment make the skills to be able to sensitively engage with patients and their families paramount. In addition, communication is sometimes used as a means of treatment in itself.

Some of these skills have now been outlined in the recently released core curriculum for specialist training in psychiatry (Royal College of Psychiatrists, 2009). Many of these seem logical and appropriate e.g. “elicit a complete clinical history”(1-1a) or “formulate and discuss differential diagnosis”(1-2a). Others (“foster a therapeutic alliance with patients”(1-5a)) still sound rather vague and difficult to define further.

Reflecting on my experience, I think that the work of a psychiatrist also involves managing uncertainty, having longer-term therapeutic relationships, dealing with risk, expertise in psychopharmacology, awareness of interpersonal dynamics and good teamwork. However, one of the fundamental aspects that I think may define the work of a psychiatrist is the use of empathy, that is psychological understanding of another. This is vital for many of the areas of work I have already described, although again the underlying core skill set for “empathy” may not be well defined (Brenner, 2009).

So overall, a variety of different skills seem fundamental to psychiatric practice. Although more basic clinical assessment and communication skills may be apparent from college curricula, higher skills may still be difficult to exactly delineate.

**How are clinical skills learned?**

*The context: medical postgraduate training*

On qualifying as a doctor, there is often still a wide array of clinical skills to be learned or mastered. Prospective psychiatrists initially spend some years learning these skills, mostly in general medicine and surgery.

Such skills are largely acquired in an “apprenticeship” style of training. Doctors are expected to learn new techniques at the bedside with a “see one, do one, teach one” approach to acquiring, using and passing on their skills (El-Sayeh et al., 2005). A systematic review of teaching evidence-based medicine (Coomarasamy & Khan, 2004) adds support for the notion that the clinical context may help, not just in the development of these skills, but also with appropriate attitudes and behaviour. Skills learning may be supplemented by teaching in classrooms or clinical skills centres.

The move to more specialised training in psychiatry is accompanied by the need to acquire additional skills; this can be a significant transition. As a trainee in the 1980s remarked “Scientific medical training is not geared to the more artistic and philosophical demands of psychiatry...” (Adam & Cook, 1984, p.53).

Much learning in psychiatry still occurs within a team, under the supervision of a consultant psychiatrist. Although the consultant may have traditionally been assumed to be the expert and “teacher” for medical apprenticeships, the relationship may be conceptualised as more of a dynamic social and learning interchange (Balmer et al., 2008). As well as learning skills, this relationship may also assist socialisation into the professional role (Bleakley, 2002), help learn important attitudes (Talbot, 2000) and perhaps more creative approaches to clinical problems (Talbot, 2002).
In recent years there have been radical changes to postgraduate medical (including psychiatric) education. Teaching and training are now overseen by one national body, and there has been a move to standardised assessment of workplace-based medical competencies (Bhugra, 2005; Brown & Doshi, 2006), backed by the development of appropriate curricula (Royal College of Psychiatrists, 2009). These changes have placed a renewed emphasis on the assessment of competence, but have had less impact on determining how clinical skills are actually learned.

**Learning through modelling**

Some clinical skills in medicine are based around practical procedures, for example, setting up an intravenous drip. These skills are predominantly motor and may have been developed by modelling the actions of senior doctors. Here, the “see one, do one” (Nazar & Andrews, 2007) method may have helped in the development of the particular skill, by use of instruction, repeated deliberate practice (Issenberg & McGaghie, 2002) and appropriate feedback. Interestingly, a systematic review investigating wide-ranging methods of clinical skills training (Byrne et al., 2008) found that no particular method emerged as superior. However outcomes seemed better when training was in the workplace, perhaps again highlighting the importance of clinical context to the learning.

There are less practical procedures to be learned in psychiatry. However, learning how to conduct an effective assessment interview may be a similar type of task, learnt early in psychiatry through modelling, repeated practice with patients, and effective feedback. With time and exposure, modelling may also help develop more subtle attitudinal change and perhaps shape the “knowing in practice” (Schön, 1987, p.33) that develops with experience. Interestingly, examples of required outcome attitudes and behaviours are now made explicit in our college curriculum, e.g. “Be able to work under pressure and to retain professional composure....”(1-4b) (Royal College of Psychiatrists 2009, p. Section14b).

**Further skill development**

In educational theory there has been a distinction made between “surface” and “deep” learning strategies (Marton & Säljö, 1976). The former is consistent with rote-learning and reproducing information whilst the latter is conceptualised to aid comprehension. Whilst “surface” level processing may be sufficient to progress through information-heavy and exam-orientated medical school, deeper learning should be required to integrate the knowledge, experience and skills necessary to deal with complex and “messy” (Schön, 1987, p.4) real world problems faced by clinicians.

Superficial approaches may be used to learn psychiatric interview skills initially. At the most basic, this would involve learning the headings of each section of information to extract from the clinical interview. This may even be sufficient to earn a “tick-box” for a competency assessment. However, I would argue that a deeper understanding of the meaning of this information, it’s relevance and context, will be essential for true empathic engagement (Tasman, 2002) with the patient and accurate diagnostic formulation.

A dominant educational perspective is that we learn by constructing meaning within our own idiosyncratic cognitive structures. So trainees will develop their skills from their own experiences, creating strategies to deal with real world “messiness” that can’t always be learned from textbooks, algorithms or the existing knowledge-base. Experiential learning (Kolb, 1984); that is to “learn by doing” (Schön, 1987, p.37), is the key here. However, some would argue that this is not sufficient for learning alone and that reflection on this experience is also needed to consolidate it (Sandars, 2009). For example, a critical incident with a patient, a complex case, or decisions that cause dissonance may prompt such reflection about how clinical skills were used.

Such a reflective stage is usually included as a key element of experiential learning cycles (e.g. Kolb, 1984). In clinical practice, supervision may encourage more guided reflection to help develop these skills further.
It seems logical that reflection may aid development from a level of “unconscious incompetence” (Proctor, 2001, p.44) via improved metacognitive awareness. However, a systemic review by Mann et al. (2009) found that although reflection may be associated with deeper learning, evidence for improved patient care as a result is disappointingly lacking.

With experience and deliberate practice (Ericsson et al., 1993) initial more elementary skills may become over-learned such that they become reflexive (Bourgeois & Servis, 2006). As the trainee develops more expertise they may move from being a “detached observer” to more of an “involved performer”, becoming more analytical and intuitive (Benner, 1984). At this stage the “artistry” of psychiatry may be more evident.

**Individual learning needs**

Given a constructivist viewpoint, the needs and existing experiences of individual trainees are vital to consider when teaching clinical skills. Trainees may have emerged from medical school with very different cognitive approaches to learning (Askell-Williams & Lawson, 2006). Some may have learnt to be “strategic learners” (Curran & Bowie, 1998) to progress through their many assessments using more superficial learning styles. Others may have a preference for learning more serially (Curran & Bowie, 1998) and thus have difficulties with the more holistic bio-psycho-social formulations used in psychiatry. Clinical supervision should provide an ideal opportunity to better understand these individual requirements.

**Teaching clinical skills**

Despite the importance of learning “on the job”, psychiatric clinical skills are often also taught separately in classroom environments. Although this may lose some contextual relevance, there are also many advantages including control of situations and teachers not being distracted by clinical work.

Simulated clinical experiences have often been used in psychiatry at various levels of education. Use of such methods has been reviewed by both Wallace et al. (2002) and McNaughton et al. (2008). In essence the doctor-patient interaction is simulated by role-playing (often using trainees) or by “simulated” or “standardised” patients (usually actors). Some skill learning may be modelled or taught via discussion or videotape before the session (Gask, 1999). How the actor or role-player then portrays the patient will be vital to the trainee’s experiential learning. The type and quality of feedback is also very important, with some using taped material of the trainee (Gask, 1999) or direct feedback from the actor. If the trainee plays the patient role, then there may be a useful opportunity to examine and test empathic understanding.

The advantages of these methods are that they can be tailored to be ambiguous and complex, dealing with skills, attitudes and behaviours, in safe and controlled environments. Literature from North America (Barney & Shea, 2007; Shea & Barney, 2007) has described using role-player based “microtraining” to establish specific behavioural techniques (e.g. asking open ended questions) as well as “macrotraining” to learn how to integrate skills to perform complex assessments (e.g. suicide assessment).

Simulations allow trainees to demonstrate their understanding via their behaviour (Barney, & Shea 2007). They can “apply clinical knowledge and practice clinical skills whilst experimenting with issues related to the acquisition of professional identity” (McNaughton et al., 2008, p.87). The whole episode is usually directly observed, allowing for invaluable instant feedback, in line with the new focus on observable competence.

Much of the evidence base for these techniques comes from their use for assessment. Wallace et al. (2002) discuss that reliability and validity have been achieved using simulated patients for Objective Structured Clinical Examinations in medicine. However, there have been concerns about using simulations for assessment in psychiatry. These include, that assessment checklists are too basic (Wallace et al., 2002),
that there are difficulties with dynamic issues such as empathy in simulations (Krahn et al., 2002), and that increasing “standardisation” may make scenarios too detached from the real clinical world.

Despite these problems, simulations can continue to provide rich learning experiences. But beyond the practicalities of such sessions, what style of teaching should we adopt? Psychiatric training still retains relatively rigid hierarchies, and encourages respect for “facts” and senior expertise. There may therefore be an automatic assumption of a more “authoritative” style of teaching. However, this may negate the experiences (and individual needs) of the trainees themselves. It also neglects the feedback of role-players who can often add an invaluable perspective on the quality of the interview from the patient perspective. I would therefore argue that a “facilitative” (Worrall-Davies, 1999) (rather than “authoritative”) style of teaching is most appropriate for such sessions. By fostering an atmosphere where questioning and reflection are encouraged, the “artistry” or creativity (Talbot, 2002) involved in higher order skills may be better understood and learned.

Assessment of clinical skills
Psychiatric trainees have to pass professional exams during their training. They are also increasingly assessed formatively, particularly with the recently introduced workplace-based assessment (WBA) programme. I will focus on this latter scheme of assessment here, as it is relatively new in psychiatry and purports to assess clinical skills as they are used in practice.

A number of WBA tools have been introduced and are still being developed. These include, for example, observed clinical episodes, case based discussions and directly observed procedures. The use of such tools in psychiatry has been reviewed by both Brown & Doshi (2006) and Fitch et al. (2008). The aim of the WBA programme is to assess actual clinical performance, in real time with immediate feedback. The organisation of the assessments is intended to promote self-directed learning and assessments with multiple tools and assessors is the expected norm.

WBA assessments have been integrated into the UK medical postgraduate curriculum relatively quickly, and there do remain concerns about their use. Although some tools seem to have reasonable validity, the literature is often derived from other countries and specialities, and specific measures (e.g. observations of procedures) do not always seem well suited to psychiatry (Fitch et al., 2008; Brown & Doshi, 2006). In addition there have been questions about how performance can be judged to be completely genuine when an observer is present (Rose, 2006).

Some authors also take issue with the way that competence seems to be defined on the basis of serial completion of a number of tasks. Van der Vleuten et al. (2000) argue against the assumption that competence consists of distinct stable competencies, that accumulate to signal expertise. Talbot (2004), in his article “Monkey see, monkey do…”, argues that such a model of competence is reductionist and does not capture the complex and holistic values-based nature of medical practice. McLachlan (2006) asserts that superficial assessment drives superficial learning, and with this in mind it is concerning if our assessment framework is heading towards becoming a “glorified competence checklist” (Fitch et al., 2008, p.128).

Reflection on skills teaching and the "evidence base"
Being able to reflect on our own and others’ thoughts and feelings is regularly encouraged in psychiatric training. It seems logical that a critically reflective mindset should be important for life-long learning in both psychiatry and teaching. As beliefs about teaching may vary considerably between individuals (Williams & Klamen, 2006), being able to analyse our own beliefs, motives and teaching style remains important for further development. Teaching a clinical skill “forces one to solidify clinical habits and to communicate the knowledge and skills to others in clear behavioral terms” (Bourgeois & Servis, 2006,
Thus our teaching should continue to usefully promote reflection on the development of our own skills as well as that of our trainees.

I began this paper with the aim of finding evidence to support best methods for teaching clinical skills to trainee psychiatrists. Considering teaching and psychiatry both deal in complex outcomes in people, I was initially surprised by the differences between the respective literature bases. Ultimately I did find some “evidence”, however I also found a lot of writing on traditions, opinions, models of learning and the development of expertise.

On reflection, I think I started with a rather narrow focus, searching for particular methods that would improve skill learning, analogous to how I would find evidence for a specific treatment. This may not acknowledge the complexity of the subject, or the difficulties in measuring learning. However, in the process I have been forced to think more broadly about my profession, the skills we aim to teach, the attitudes and values inherent in teaching and psychiatry, as well as just the “evidence-base”. At a time when my own profession seems in increasing danger of assessing by checklist, I have been encouraged to consider how higher skills employed by proficient psychiatrists may develop. So I hope that with ongoing reflection on what might contribute to clinical “artistry”, I may continue to understand better how to identify and teach aspects of this to others.

**Conclusion**

Psychiatric clinical skills are complex and sometimes difficult to define. Despite this, they remain central to the learning and practice of psychiatry. In this essay, I have discussed how clinical skill learning may be conceptualised theoretically. I have also examined ways that psychiatrists may teach these skills. Such techniques may continue to be refined with the emerging medical educational evidence base. However, clinical skill is rarely learnt in isolation from the values and knowledge needed for professional practice. Given this context and the complexity of some skills, it is concerning that some aspects of assessment seem to be becoming over-simplistic. It is therefore hoped that ongoing reflection by psychiatrists on the nature of their clinical skills will encourage continued thoughtful teaching practice as well as meaningful assessment.

**References**


Communication skills training at the Royal Veterinary College (RVC): A review of undergraduate teaching and learning methods.

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A review of undergraduate teaching and learning methods

Good communication is part of the "art" of veterinary medicine. The governing body of the veterinary profession, the Royal College of Veterinary Surgeons, has recognised effective communication as an essential day one competence required by veterinary graduates (RCVS, 2006). The Veterinary Defence Society observed that around 80% of professional negligence claims have a component of inadequate communication and almost 10% of new graduates have a complaint registered within a year of qualifying (Radford, Stockley et al., 2003).

The Queen Mother Hospital for Animals is a specialist referral hospital at the Royal Veterinary College (RVC), where final year students receive the latter part of their clinical training, under close supervision. A review of complaints over the last three consecutive years (from pet-owners or referring veterinary surgeons) indicated that 42%, 50% and 65% of complaints related to communication problems (Sian Griffiths, personal communication, 2010). This highlights that poor communication is a key factor in client dissatisfaction.

Concerns about client complaints and fear of litigation have been identified as stress factors in the veterinary profession, which has a high rate of suicide (Mellanby, 2005; Bartram and Baldwin, 2008; Bartram and Baldwin, 2010). Professional training in communication skills may be beneficial to help new graduates deal with difficult situations in the work environment, thus reducing stress levels (Gardner and Hini, 2006).

Much has been learnt from the human medical profession, where communication skills training and assessment have been widely adopted (Kurtz, 2004; Silverman et al., 2004; Adams and Kurtz, 2006; Kurtz 2006; Rider and Keefer, 2006). Communication skills training was introduced in UK veterinary undergraduate curricula in 2003, when a steering group, the National Unit for the Advancement of Veterinary Communication Skills (NUVACS) was formed, funded by the Veterinary Defence Society (Gray, Blaxter et al., 2006). After initial positive results (Latham and Morris, 2007), communication skills training has been adopted as an integral part of the undergraduate curriculum.

The RVC communication skills training programme is integrated throughout the five year BVetMed degree, employing a balance of complementary teaching methods. The very first lecture of the course introduces the importance of good communication and the NUVACS veterinary consultation model (Radford, Stockley et al., 2006; Gray 2010) (Appendix 1), based on the Calgary-Cambridge model used in medical education (Kurtz, Silverman et al., 2003). A second lecture (in year 2) introduces history-taking. Traditionally, lecturing is considered to involve teacher-dominated transmission of information, which is
not particularly effective in promoting engagement and higher order thinking, such as problem-solving, decision-making, application of principles and creativity (Bligh, 1971; McLeish, 1976). Lectures are more likely to promote surface learning rather than deep learning. Large student groups (approximately 220 students) create a challenge regarding student-teacher interaction. Video clips of consultations are used to encourage student participation and discussion. The material covered primes the student with knowledge to take forward into more student-centred, small group activities, to encourage a deeper approach to learning.

Small group teaching sessions and are held in years 1-4. Interactive discussions are timetabled prior to extramural placements on farms (year 1) or in veterinary surgeries (year 3) and revolve around communication difficulties the students might encounter. This contextualises the teaching, giving it relevance to real-life situations. A directed learning session, in second year, encourages small groups of students to collaborate and think about the essential components of a veterinary consultation. This promotes interactive discussion, reflection and creative thought processes. At the end of this session the NUVACs consultation model is reviewed, which reinforces what they have constructed from their own discussions.

In the third year students reflect on their own strengths and weaknesses regarding communication, before extramural placements and are encouraged to think about communication in the workplace. They are also asked to observe, critically review and record their thoughts about two real consultations in a veterinary practice, with the permission of the veterinary surgeon.

Experiential learning, through role-play, is an invaluable part of the learning experience (Radford, Stockley et al., 2003; Chun, Schaefer et al., 2009) and occurs in years 1-3. Experiential learning relates to theory based on Kolb’s learning cycle, where being immersed in an experience forms the basis for observation, reflection and assimilation of thoughts, leading to the formation of theories and ideas. This in turn results in decision-making and problem-solving which can be applied to new experiences (Kolb, 1984). Students are often nervous about participating in role-play but afterwards, perceive it to be effective in improving their communication skills (Brandt and Bateman, 2006).

In the first year, the role-playing is conducted amongst the students themselves. In the second year, role-play exercises involve simulated consultations with professional actors, acting as animal-owning clients. Each student plays the role of a third year veterinary student on extramural studies. The student and actor are given information about the scenario in advance. The aim is for the student to communicate effectively with the “owner”, to obtain a thorough and pertinent history, following the NUVACs veterinary consultation model. The facilitator assists a group of 5-6 students to think about what questions should be asked, to help the designated role-playing student with the consultation. The facilitator assigns roles to members of the group, each student observing specific aspects of the communication during the consultation. The simulated consultation takes place and following this, structured feedback is given. The role-playing student reflects on the consultation first - what aspects went well and what could be improved upon. The facilitator invites constructive criticism from other members of the group and general discussion. The actor is then invited to give their feedback from the “client” perspective.

In the fourth year, a similar session takes place, but deals with complex situations, such as euthanasia, debt and anger, requiring more advanced communications skills. This experiential learning forms a critical part of the training process and will be focussed on in the second part of this assignment. In the final year, students are encouraged to put what they have learnt into practice in real consultations with clients in the Queen Mother Hospital.
The students are supplied with learning objectives at each stage of the course, which should be aligned with the assessment process, according to Biggs’s theory of constructive alignment (Biggs and Tangs, 2007). Assessing effective communication is difficult in examinations. Currently, the RVC attempts to achieve this via Objective Structured Practical Veterinary Examinations (OSPVEs), using actors as simulated clients in both formative and summative assessments, similar to assessments used in medical education (Roberts, Wass et al., 2003). There are two OSPVEs in the final examinations.

**A Study: Experiential learning by role-playing – Does the veterinary experience of the facilitator matter?**

*Introduction*

The importance of a facilitator having veterinary knowledge when teaching undergraduate veterinary communication skills is not known. It is possible that clinicians currently performing clinical work, involving client consultations, might have a better understanding of the importance of vet-client communication and might be better equipped to teach the student communication skills than someone that has no such experience. A person with significant veterinary knowledge (e.g. veterinary nurse or person who has had previous experience in veterinary practice) might also be expected to facilitate this process better than a person who has no veterinary knowledge or training. Students might perceive a session as more meaningful or realistic and be more likely to engage if they know it is being facilitated by a clinician who knows what it is like in the “real world”, or perhaps by someone with a veterinary background. On the other hand, busy clinicians may actually be poor communicators - they may have become jaded or complacent about their own communication skills, losing the patience to communicate effectively and thus may not appreciate what the student needs to learn. A facilitator with no veterinary knowledge might actually appreciate a layperson or client’s side of the communication process better and might, therefore be a better facilitator for the process of teaching communication skills. A non-expert facilitator might also create a more student-centred experience rather than offering expert advice.

The aim of this study was to test the hypothesis that the veterinary background of the facilitator was important in the learning experience and learning outcome, as evaluated by student feedback forms.

*Materials and Methods*

Communication skills training sessions involving role-play with simulated clients, conducted between 8 and 12 February 2010, were assessed. Two hundred and thirty six second year students were divided into groups of five or six and a facilitator was assigned to each group. Prior facilitator training consisted of a half day training session (including role play with actors) and a half day session observing an experienced facilitator. Facilitators (n=35) consented to take part in the study and were assigned to three groups, anonymously, as follows: Group 1- Facilitator with no veterinary background (n=12), Group 2- Veterinary surgeon currently actively involved in clinical work (n=5); Group 3- Facilitator with substantial veterinary knowledge (e.g. veterinary surgeon not currently practicing clinical work, or veterinary nurse) (n=18). After a brief discussion, simulated consultations were performed with professional actors and structured feedback was given. Student feedback questionnaires (Appendix 2) were completed at the end of the sessions. Questionnaires were marked prior to the session in the top right hand corner with a 1, 2 or 3 depending on the veterinary background of the facilitator. Students were asked to score their experiences between 1 and 6, where 1=not at all, 6=to a great extent. Following submission, the forms were pooled and separated into facilitator groups 1, 2 and 3 for analysis. Data were processed using SPSS 16.0 for Windows. Median scores were calculated for responses to each question in the questionnaire. Facilitator groups were assessed for differences, using the non-parametric Kruskall-Wallis test for independent samples.
Results

All 35 facilitators consented to participate in the study. In both groups 1 and 3, two facilitators were assessed twice, in 2 separate sessions, each by 2 different groups of students. Two hundred and nineteen student feedback questionnaires were returned (92.8 % return). In part 1 of the feedback, the first 3 questions (Appendix 2) asked about how the students felt prior to the session. There was no difference in the median scores for the three groups of facilitators in how useful the student felt the session was likely to be (Appendix 3, Figure 1), whether the students had an idea of what would happen (Appendix 3, Figure 2) and how enthusiastic the students felt about the session (Appendix 3, Figure 3). Overall students anticipated that the session would be useful (median score 4), they appeared well prepared for what would happen (median score 5 out of 6) and were relatively enthusiastic (median rating 4 out of 6). The inter-quartile range was lower for enthusiasm for group 3.

In part 2 of the feedback questionnaire (Appendix 2), regarding their learning experience during role-play, the following factors were evaluated: how realistic the experience was, whether the session increased the student’s confidence, whether it raised the student’s awareness of the importance of veterinary communication, whether the session had allowed them to identify their communication strengths and whether it had given them insight for improvement. Results are shown in Appendix 3, Figures 4-8. No significant differences were observed in the median scores for the different groups of facilitators. The median scores were high, at 5 out of 6 in nearly all cases. In group 2, the median score regarding whether the session increased the students’ confidence was 4, compared with 5 in the other groups, however this was not significantly different and the inter-quartile range was the same.

In part 3 of the feedback questionnaire (Appendix 2), students were asked to rate whether the session had raised their awareness of the skills used by vets (Appendix 3, Figure 9) and whether the session had made them a better communicator (Appendix 3, Figure 10). There were no significant differences between the median scores in each group (5 out of 6). The majority of students gave high scores, (>4), for both questions.

Discussion

The student feedback questionnaires used were not designed specifically for this study, but were already in use at the RVC. Thus, some questions had more relevance than others in relation to student learning experience and outcome.

The number of facilitators in each group varied. Unfortunately only small numbers of people actively doing clinical work were assessed (group 2, n=5, 29 questionnaires returned). The scores for these clinicians may not be representative of clinician facilitators in general. Also, the fact that two facilitators each in groups 1 and 3 were assessed twice might have biased results, particularly if these people were particularly poor or very good facilitators.

In section 1 of the feedback questionnaire, it was not clear whether the responses given related temporarily to perceptions before the start of the entire session (which the facilitator could not influence) or just before participating in role play, where the facilitator could have had an effect. If the latter situation were true, then it would appear that the veterinary background of the facilitator did not cause the students to have pre-conceived misconceptions about how useful the session would be and facilitators helped students to feel equally well-prepared in all groups. Although the median score for enthusiasm was the same in all groups, the inter-quartile range was lower in group 3, indicating that individual scores for student enthusiasm were lower, possibly suggesting that facilitators who were not currently involved in clinical work but had significant veterinary knowledge were, for some reason, less motivating. This may have related to facilitator personalities in group 3; alternatively, this effect may have been completely independent of the facilitators and for some reason the students in group 3 had lower enthusiasm on the day.
Section 2 related to the students’ experience of role-play and section 3 reflected how the students felt after the session. Median scores were high (4 or 5 out of 6) for all groups, for each of the factors, indicating that the experience was worthwhile and the learning outcomes were positive. No significant differences were detected between the scores for the three different groups of facilitators. If these findings are valid, this indicates that the veterinary background of the facilitator made no difference to raising the students’ awareness of communication skills or making them a better communicator.

It should be considered whether the feedback questionnaire is a reliable way to determine differences in learning experiences and outcomes. The focus is purely on student perception and the questionnaires were filled out directly after the session, without allowing time for contemplative reflection. Given more time, student impressions might have been different, however, asking the students to complete the questionnaire on a separate occasion would likely have led to poor compliance and a low return rate.

An alternative way to discover differences in learning outcome between the groups would be to analyse the students’ performance in OSPVEs. Ultimately it would be desirable to know whether the students in a particular group truly have become better communicators upon graduation. Assessing this in a realistic situation is difficult. Videoing consultations would require client consent and is somewhat artificial. Client satisfaction surveys can attempt to address this.

Obtaining feedback from the facilitator’s point of view could also be beneficial. In one programme involving medical communication skills training, the facilitator experience was far less positive than the student perspective (von Below, Hellquist et al., 2008). It is important to try and ensure that student and facilitator experiences are positively aligned to create a good learning climate (Biggs and Tang, 2007).

Facilitation has been defined as “a goal-orientated dynamic process, in which participants work together in an atmosphere of genuine mutual respect in order to learn through critical reflection” (Burrows, 1997). To become a facilitator, teachers have to undergo a transition from a someone who imparts information in an authoritative uni-directional manner, to someone who actively encourages discussion and views learning as a shared venture, which can prove difficult (Olmesdahl and Manning, 1999). Facilitators are trained for participation in veterinary communication skills sessions; however, this training is limited to two half day periods. A recent study in medical communication skills training suggested that a 3-4 hour training session was insufficient to equip many facilitators to facilitate role-play sessions adequately (Bylund, Brown et al., 2009). Facilitator competence was not assessed in the current study. Individual facilitators may have differed considerably in their ability to stimulate interest, discussion, insight and reflection, affecting deeper learning outcomes, such as understanding and conceptual change. Effective facilitation likely requires practice, frequent repetition and ideally assessment and feedback. It is possible that treatment infidelity occurred between groups, making it difficult to interpret differences in student learning experience and outcome measures with any validity.

In small group teaching and problem-based learning sessions, there is controversy as to whether it is beneficial for a facilitator to be a subject expert, or not (Davis, Nairn et al., 1992; Schmidt, van der Arend et al., 1993; Davis, Oh et al., 1994; Gilkison, 2003; Groves, Rego et al., 2005). In the current study, group 2, consisting of clinicians actively performing consultations, might be regarded as the experts. Group 3, people with significant veterinary knowledge might be considered semi-experts and group 1, non-experts. The results regarding student learning experience and outcome were similar in all groups, perhaps reflecting that communication is a life skill important to all human beings and that veterinary expertise was not relevant. One might argue that individuals who are more highly trained in communication skills could be considered to be the subject experts. This could have been a confounding factor in the current study.
Conclusion
Veterinary communication skills training is an evolving part of the veterinary undergraduate curriculum. Experiential role-playing in small groups with peer-to-peer feedback, assisted by a trained facilitator forms an essential part of this training process. Previous studies have indicated that students find this type experiential learning beneficial, however, continual critical analysis of teaching methods is important to provide insight to improve student learning outcomes. In this small study, the veterinary background of the facilitator did not appear to make a difference to the student learning experience or outcome in veterinary communication skills training, as assessed by the student feedback questionnaire; thus the null hypothesis was accepted. This study had several limitations, but if the results are truly representative of a successful learning outcome, the findings will be useful when selecting individuals to train as facilitators in the future. The fact that non-expert facilitators can provide equally good learning outcomes has important implications for staffing resources at the RVC, since large numbers of facilitators are needed to accommodate small groups in the face of increasing student numbers. Future work should investigate feedback from both facilitators and students along with examination performance, in order to align teaching, learning and assessment processes. In addition, assessment of facilitator competence would be recommended to ensure effective facilitation in the RVC programme.

Acknowledgements
The author would like to thank Belinda Yamagishi and Helen Shore (RVC communication skills programme leaders) for their assistance in carrying out this project and to all the facilitators and students for taking part. Thanks also Dr Harriet Syme who helped hatch the idea to look at the facilitation process and to Stylianos Hatzipanagos at King’s College for his encouragement and assistance.

References


**Appendix 1:** The NUVACS Veterinary Consultation Model (Radford 2006), based on the Cambridge-Calgary model for medical consultations (Kurtz 2003)

### Preparation

- Establish context
- Create a professional, safe and effective environment

### Initiating the Consultation

- Establish initial rapport with client and animal
- Identifying the reason(s) for the consultation

### Gathering Information

- Exploration of the client’s presenting complaint(s) to discover
  - *the client’s perspective (disease - short term history)*
  - *the client’s perspective (include animals purpose)*
  - *essential background information (long term history)*

### Physical Examination

### Explanation and Planning

- Providing the appropriate amount and type of information
- Aiding accurate understanding and recall
- Achieving a shared understanding: incorporate the client’s perspective
- Planning appropriate shared discussion making

### Closing the Consultation

**OBSERVATION**

- Summarise
- Forward planning

### Observation

- Non-verbal behaviour
- Developing rapport
- Involving the client
- Involving the animal(s)
Appendix 2 – Copy of the Communication Skills Student Feedback Questionnaire

We would like to develop and improve the Communication Skills system. We would like to hear more about what kind of experience this has been for you. Please fill out this questionnaire and add any comments that will help us to have a complete picture of how Communication Skills works for students. Please respond by circling the correct number on this scale which reflects your level of agreement with the statement:

1 = not at all to 6 = to a great extent

Part 1: Expectations before participating:

I felt:

a) It would be a waste of time
   1  2  3  4  5  6

b) I had an idea of what would happen
   1  2  3  4  5  6

c) Enthusiastic about participating
   1  2  3  4  5  6

Part 2: Experience of role-playing with a simulated client and the following feedback:

To what extent did the experience communicating with the client

a) Feel realistic?
   1  2  3  4  5  6

b) Increase confidence (in relation to communicating with others)?
   1  2  3  4  5  6

c) Raise awareness about the importance of communication?
   1  2  3  4  5  6

d) Identify strengths as a communicator?
   1  2  3  4  5  6

e) Provide insights about what could be improved?
   1  2  3  4  5  6

Part 3: Experience of the impact of this session on your own communication skills:

To what extent do you believe that this session:

a) Raised your awareness of the skills used by other vets when communicating?
   1  2  3  4  5  6

b) Made you a better communicator?
   1  2  3  4  5  6

Please add any further comment you may have on Communication Skills Training.
Appendix 3

Box plot representation of results from the student feedback questionnaire

In each figure, the Y axis indicates a scale of response where 1 = not at all and 6 = to a great extent. The X-axis shows the different groups:

Group 1 = Facilitator with no veterinary background

Group 2 = Facilitator who is a veterinary surgeon currently actively involved in clinical work

Group 3 = Facilitator with substantial veterinary knowledge (e.g. veterinary surgeon not currently practicing clinical work, or veterinary nurse).

Results are displayed as the median score (black line), with the box representing the inter-quartile range and the whiskers representing the 95% confidence limits. Outliers are marked by a circle. Extreme outliers are marked by an asterisk.

Figure 1: Box plot indicating how useful the students felt the training session would be.

Figure 2: Box plot indicating how prepared the students felt before participating.

Figure 3: Box plot indicating how enthusiastic the students felt before participating.

Figure 4: Box plot indicating how realistic the students found the role-play.
Figure 5: Box plot indicating to what extent the role-play increased the students’ confidence (in relation to communicating with others).

Figure 6: Box plot indicating to what extent the role-play raised the students’ awareness of the importance of communication.

Figure 7: Box plot indicating to what extent the role-play identified the students’ communication strengths.

Figure 8: Box plot indicating to what extent the role-play provided insight for improvement.

Figure 9: Box plot indicating to what extent the session raised the students’ awareness of the skills used by other vets when communicating.

Figure 10: Box plot indicating to what extent the session made the student a better communicator.
Past students’ perceptions of the effectiveness of a one-year Master’s degree in veterinary epidemiology

Kim Stevens
The Royal Veterinary College, University of London
Submitted: June 2010

Introduction
Reasons for doing a Master’s degree include enhanced employment prospects or preparation for doctoral studies. Entrance to the degree can be via a number of different routes but is generally “based on evidence of a capacity to undertake higher degree studies in the proposed field” (http://en.wikipedia.org/wiki/Master’s_degree; accessed on 16 June 2010). Yet no matter what their reason for doing a Master’s both students and employers have high expectations of the degree. According to the UK Quality Assurance Agency for Higher Education, students who have completed a Master’s degree in the United Kingdom are expected to “have the qualities needed for employment in circumstances requiring sound judgement, personal responsibility and initiative, in complex and unpredictable professional environments”. In addition, not only is a Master’s expected to teach disciplinary skills (both theoretical and practical) but it is also expected to instill generic skills (Assister, 1995). These have been defined by the Department for Education and Employment as “those cognitive and personal skills (application of number, communication, information technology, problem solving, personal skills, working with others and improving own learning and performance) which are central to occupational competence in all sectors and at all levels” (Department for Education and Employment, 1998).

However, the expectations of a Master’s course need to be balanced by the constraints imposed by the very nature of the degree. Students will not be as homogenous a group as is generally encountered at the undergraduate level. Instead, students enrolled on a Master’s degree will almost certainly be extremely diverse with respect to age, educational background and experience, culture, language and learning styles. However, Tang and Biggs (2007) conclude that a curriculum based on constructive alignment obviates the need to account for such diversity.

There are currently two broad theories of teaching; constructivist and objectivist (Biggs, 1996). By combining constructivist theory - that students “construct” their knowledge more from the activities they engage in rather than from anything the teacher does (Shuell, 1986) - with the concept of “alignment” - that learning outcomes should specify what students need to do and the level of understanding they need to demonstrate in order to show that they have achieved the learning outcome, and that the assessment should be used to determine whether they have achieved the relevant level of understanding - Biggs created a model which encourages deep rather than surface learning (Marton and Saljo, 1976).

Conversely, the objectivist approach assumes that “knowledge exists independently of the knower, and understanding is coming to know that which already existed” (Biggs, 1996). Although constructivism is currently the more widely accepted theory of teaching many curricula still exhibit, to a greater or lesser degree, an objectivist approach.
Stefani (2009) highlights the steps involved in the learning outcomes approach to course and curriculum design:

- Identify the aims of the course
- Generate intended learning outcomes
- Design the assessment framework to match the intended learning outcomes
- Decide on the course content
- Plan relevant teaching activities
- Identify the required resources
- Determine how the course will be evaluated

Curriculum development is an ongoing process (Bailey et al., 2007). Once in place any course needs to be evaluated regularly to determine how well it is performing and to identify aspects requiring modification, updating, improvement or restructuring (Morrison, 2003). Harris et al. (2010) suggest that curriculum evaluation should be "longitudinal, developmental and multilevel". Evaluation should focus not only on whether course objectives are being achieved, the suitability of the course content and the level at which it is being taught, but also on whether the course is meeting the wider requirements of both students and future employers (McKimm and Barrow, 2009). Student assessment results are only one aspect of the course evaluation process and should be used together with student feedback (current and past), internal review by those delivering the course, and external review by peers and stakeholders, to provide a comprehensive and robust evaluation of the quality and effectiveness of any course (Hounsell, 2009).

The Master’s degree in Veterinary Epidemiology (MSc VE) offered by the Royal Veterinary College is a one year, full-time course which aims to “provide students with an understanding of the conceptual basis of veterinary epidemiology and with training in essential methodological skills for the conduct of epidemiological studies in animal populations” (http://www.rvc.ac.uk/About/Publications/Documents/PG10b3_CoursesVetEpi.pdf; accessed on 18 June 2010).

The course was first offered in 1999 and a review is conducted every five years by external parties. A component of the second quinquennial review (held in July 2010) was a survey of past student’s perceptions of the course with respect to (i) achievement of course objectives, (ii) course content and structure, (iii) the development of generic skills and (iv) how competent students felt upon completion of the course. This paper summarizes the results of that survey.

Method

The study population comprised 113 students who enrolled for the course between 1999 and 2009. A questionnaire was compiled consisting of 64 questions concerning the past student’s demographics and prior qualifications, and relating to course objectives, content and structure, and the development of generic skills during the course. Questions concerning demographics and prior qualifications were open-ended, but those related to course objectives, content and structure, and the development of generic skills were closed. For each course objective students indicated whether they strongly agreed, agreed, disagreed or strongly disagreed with the statement “The course provided (insert appropriately worded objective)”. For example, “The course provided the necessary training in how to analyze and interpret epidemiological data derived from cross-sectional, case-control and follow-up studies”. Similarly for the development of generic skills. With respect to course content and structure, students were asked to indicate whether they felt the time dedicated to different subjects and types of teaching was just right, too much or too little.

The questionnaire was administered as an online survey and took approximately 15 minutes to complete. The questionnaire was tested on five past students and slightly amended based on their comments before being emailed, with a brief covering letter, to the study population. Students were given four weeks in which to complete the questionnaire and those who had not responded after two weeks were sent a reminder.
The raw data were collated in a Microsoft Access database; two respondents who had not provided their names were removed from the dataset as their responses could not be linked with the demographic data collected from all students when enrolling. Data were analysed using SPSS 17.0 for Windows (SPSS Inc., Chicago, Illinois, USA). Frequency of response to the different questions was determined and chi-square tests were used to compare the demographics of the respondents and study population (p < 0.05). The results of the survey were included in the quarterly Alumni newsletter thereby completing the feedback cycle (Morrison, 2003).

**Results**

**Response rate**
Fifty-one (45%) of the 113 past students completed the questionnaire; nine (8%) returned an “undeliverable” email message resulting in a response rate of 49%.

**Student and respondent demographics**
Respondents represented all ten years of the MSc VE (Figure 1) although a higher proportion of respondents were from the more recent years (Figure 2). The respondents were a highly diverse group (Table 1) although there was no significant difference between the demographics of respondents and the study population. Two respondents (4%) had already completed a PhD and eight (16%) had completed another master’s degree. The remainder had completed one or more Bachelor’s degrees.

![Figure 1: Students and respondents categorized by year of study on the Master’s degree in Veterinary Epidemiology.](image-url)
Figure 2: Proportion of respondents categorized by year of study on the Master’s degree in Veterinary Epidemiology.
Table 1: Demographic profile of respondents and all students previously enrolled on the Master’s degree in Veterinary Epidemiology between 1999 and 2008.

<table>
<thead>
<tr>
<th></th>
<th>Respondents (n (%))</th>
<th>Students (n (%))</th>
<th>Chi-square p-value</th>
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<tr>
<td><strong>Gender</strong></td>
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<td>Female</td>
<td>28 (55)</td>
<td>57 (50)</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>23 (45)</td>
<td>56 (50)</td>
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<tr>
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<td></td>
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</tr>
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<td>Not applicable</td>
</tr>
<tr>
<td>31 – 40</td>
<td>19 (37)</td>
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</tr>
<tr>
<td>41 – 50</td>
<td>4 (8)</td>
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<tr>
<td>50 and over</td>
<td>1 (2)</td>
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<td><strong>Background</strong></td>
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<tr>
<td>Veterinarian</td>
<td>39 (76)</td>
<td>95 (84)</td>
<td>0.24</td>
</tr>
<tr>
<td>Non-veterinarian</td>
<td>12 (24)</td>
<td>18 (16)</td>
<td></td>
</tr>
<tr>
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<td><strong>Nationality</strong></td>
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<td>Australasia</td>
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<td>2 (2)</td>
<td></td>
</tr>
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</table>

**Course objectives**

Regarding the achievement of course objectives, Respondent 17 observed that “the course had very ambitious objectives and only a very short space of time to achieve these, but I think that it did achieve them”. Almost all students (94%) agreed that the course provided an understanding of the key concepts underpinning veterinary epidemiology, of the methodological skills for conducting epidemiological studies, of the conceptual basis of veterinary epidemiology and provided training in how to analyze and interpret epidemiological data from cross-sectional, case-control and follow-up studies (Figure 3). Respondent 33 noted that the course provided “...a thorough grounding in epidemiological methodologies and statistical analysis”.

Slightly fewer students agreed that the course provided the necessary training in how to apply epidemiological principles to surveillance and infectious disease control within animal and human populations (88%) or provided the necessary training in how to select an appropriate study design when confronted with an epidemiological research question and develop a detailed study protocol capable of answering the research question and (86%; Figure 3).
However, only 53% felt that they received suitable training in how to critically review the published epidemiological literature while less than half the respondents felt they had been trained in how to communicate effectively with researchers from different disciplinary backgrounds (47%) or with other people with an interest in human and animal health, including the general public and key policy makers (49%; Figure 3). Respondent 48 commented that “...it would have been useful to have had a segment of teaching on presentation and communication skills. More specifically this is in relation to the communication of complex technical information to a lay audience”, while Respondent 51 remarked that the MSc “...did not provide any courses to support or train with respect to the specific objectives like communication and critical review”.

**Figure 3:** Achievement of course objectives during the Master’s degree in Veterinary Epidemiology.

**Course content**

Figure 4 shows the percentage of respondents who felt the time allocated to a subject was just right. Over 90% of the respondents felt that the amount of teaching time dedicated to basic statistical methods was just right; no one thought there was too much time spent on the subject. Other topics that most respondents agreed had the right amount of teaching time dedicated to them included study design (81%) and modeling of infectious diseases (72%). However, at least half the respondents felt that there was too little time devoted to advanced statistical methods (50%), spatial analysis (50%), writing of grant proposals (51%) and risk analysis (53%).
In fact only 38% of respondents felt that the teaching time devoted to risk analysis was just right. However, the problem may have been the structure and content of the risk analysis sessions rather than the amount of time devoted to the subject as Respondent 28 observed that “the module on risk analysis wasn’t well structured. Too little time was spent on the concepts and probability theory, and too much time was spent on the software @Risk, so it ended up being a training in how to use @Risk rather than a training in risk analysis”. Few respondents thought that too much time was spent on any one subject, apart from Animal Health economics (13%; Figure 4).

A number of respondents identified additional topics they would like to see covered by the MSc VE but most realized that “…given the course is time-limited this may not be possible” (Respondent 48). In fact a number of respondents commented on the constraints imposed on the teaching owing to the MSc being a one year course. Respondent 11 commented that “I believe [a] 1 year period was inadequate for me to fully appreciate the principles of veterinary epidemiology in order to sufficiently apply them in the real world” while Respondent 30 observed that the course included “too many compulsory topics in too little time. The field is too big to teach everything in one year, so choice should be included”.

**Course structure**

Although the majority of respondents (89%) thought that the amount of time dedicated to lectures was just right, 14% felt that other, less formal teaching methods such as group work and directed learning could be better incorporated into the course (Figure 5). However, most agreed that guest lecturers and industry visits were under-used as teaching methods (Figure 5).
With respect to the different teaching methods used on the course (lectures, practical exercises, group work and directed learning) Respondent 24 commented that “they are all beneficial in their place; whether they are most or least [beneficial] will depend on an individual’s style of learning and the sort of teaching system that they are used to as much as the subject taught - a balance/mix is required. The course (at the time I studied) met my learning style requirements, with different methods applicable at different parts of the course and with different subjects”. Respondent 48 observed that “I think the course had a good balance of teaching approaches which kept me engaged and challenged”.

![Figure 5: Appropriateness of the time allocated to different teaching methods during the Master’s degree in Veterinary Epidemiology.](image-url)
Development of generic skills
As illustrated in Figure 6 almost all respondents (94%) agreed that the course promoted the development of computer skills with Respondent 33 adding that “the major generic skill [of the MSc VE] was in data analysis and statistical analysis with computer software”. Other skills which respondents felt the course promoted included problem solving (75%), written communication (65%), team work (59%) and to a lesser extent, decision making (55%). Respondents felt that the course did not promote the development of leadership and oral presentation skills (Figure 6). Respondent 43 commented that “a few more opportunities to develop presentation skills would have been very useful” while Respondent 18 felt that “problem-solving and decision making would be very beneficial, but for that, more practice and hands-on is needed”.

Figure 6: Percentage of respondents who agreed that the Master’s degree in Veterinary Epidemiology promoted the development of a specific generic (employable) skill.

Competency
By the end of the course 84% of respondents felt confident about starting work as epidemiologists.
Discussion

Based on past students’ perceptions of the course, the MSc VE appears to be highly effective in some areas (teaching of disciplinary skills) but less so in others (teaching of generic skills). In addition, the amount of time allocated to certain subjects is perceived as being inadequate. Despite these shortcomings 84% of respondents were confident about starting work as epidemiologists upon completion of the course.

Respondents agreed that most of the course objectives had been achieved. Interestingly, the three objectives which most felt had not been met focused more on generic than disciplinary skills (critical review of literature and effective communication). It would therefore appear that the MSc VE is effective in imparting embedded attributes (Tang and Biggs, 2007) or knowledge, suggesting that rather than being based on constructive alignment the curriculum leans more towards the objectivist approach. This is supported by Respondent 28’s comment regarding the misalignment of the objectives and content of the risk analysis teaching (pg 11, para 1). In addition, the objectives that were rated less positively would also seem to be higher order outcomes requiring evaluation and criticality rather than the essentially more straightforward understanding which can often indicate “knowing” or “being familiar with” (Biggs, 1996).

Any restructuring of the MSc VE therefore needs to focus on aligning, to a greater degree, all learning outcomes with the teaching activities and assessments.

Only generic skills essential to the field of epidemiology, such as computer literacy and problem solving, appear to be well catered for in this course; skills not directly related to epidemiology received less attention. With the high level of competition between universities to recruit students those that are seen to offer a well-rounded package that improves student employability on all fronts, rather than focusing only on disciplinary skills, will have the advantage. For this reason many universities are now including statements regarding generic skills in their mission statement. For example, the University of Auckland’s graduate profile describes what to expect of a student who has completed one of their undergraduate degrees (http://www.auckland.ac.nz/uaa/home/for/current-students/cs-academic-information/cs-regulations-policies-and-guidelines/cs-graduate-profile). It lists 18 attributes which students are expected to have by the time they finish their studies of which only three relate to specialist knowledge; the remaining 15 refer to either generic skills or personal qualities. This allocation emphasizes the importance of offering a well-rounded package which prepares students for “a climate of continual change and innovation” (Dunlap, 2005) rather than teaching only disciplinary knowledge.

Past students of the course were a highly diverse group with respect to age, educational background and experience, nationality, language and learning styles (Table 1). This can frequently lead to teachers trying to cater more for this diversity than in focusing on actual teaching. However, Biggs and Tang (2007) conclude that “when teaching is focused on student’s learning activities that are aligned to the intended outcomes of learning, the need to teach presumed differences between students on the grounds of ethnicity disappears”. In fact, most respondents saw the diverse nature of the class as a highly positive aspect of the course rather than a limitation, suggesting that there is a degree of constructive alignment within the curriculum. In addition, using a range of teaching methods (lectures, practical exercises, group work and directed learning) caters for different learning styles (Sarasin, 1999) thereby helping to minimize some of the constraints that the diverse nature of the group may be seen to impose on teaching and learning, although tactile learners could be better accommodated on the course by increasing the number of guest lecturers and industry visits. However, this would be expensive so incorporating other, less expensive teaching methods which engage tactile learners should be considered.
The biggest constraint on the course appears to be the time available (one year) which impacted largely on course content; more than half the subjects were perceived as not receiving sufficient teaching time. Increased usage of student-centered activities, such as podcasts, directed and computer-aided learning and videoed lectures (Brenton, 2009), as opposed to formal, teacher-centered lectures can help to make better use of both students’ and lecturers’ time.

Evaluation is fundamental to any course or curriculum design. A comprehensive and robust evaluation is achieved by combining input from student assessment results, student feedback and internal and external peer review (Hounsell, 2009). However, it is important to ensure that the type of evaluation is aligned with the outcome of the evaluation and to remember that, as Morrison (2003) indicated, “daily contact [with teaching], however, does not mean that students are skilled in evaluation. Evaluation by students should be limited to areas in which they are competent to judge”. For example, student feedback is useful to determine whether course objectives are met and whether content is being taught at a suitable level while external peer review would be more appropriate for determining the overall performance of a course in relation to its competitors. The aspects of the MSc VE discussed in this paper are therefore well within the scope of student feedback, in particular past students, who are better placed than the current students to evaluate the effectiveness of the course. However, by involving past rather than current students, it is possible the responses were influenced by some degree of recall bias as students were commenting on a course they took up to ten years ago.

Conclusion
Based on past students’ perceptions of the course, the MSc VE appears to be highly effective in some areas (teaching of disciplinary skills) but less so in others (teaching of generic skills). In addition, the amount of time allocated to certain subjects is perceived to be inadequate; a common problem in one-year postgraduate degrees. However, on an already effective course, such shortcomings are relatively easily addressed. By ensuring that all learning outcomes, particularly those relating to communication skills, are constructively aligned with teaching activities, the teaching of generic skills would be enhanced. In addition, the perceived time constraints, owing to this being a one-year course, could be mitigated through increased usage of student-centered activities, such as podcasts and videoed lectures.

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2On completion of the MSc VE students will be able to:

(1) Demonstrate an understanding of the key concepts underpinning the discipline of veterinary epidemiology. (2) Select an appropriate study design when confronted with an epidemiological research question and develop a detailed study protocol capable of answering the research question. (3) Analyse and interpret epidemiological data derived from cross-sectional, case-control and follow-up studies. (4) Review critically the published epidemiological literature. (5) Apply epidemiological principles to surveillance and infection and disease control within animal and human populations. (6) Communicate effectively with researchers from different disciplinary backgrounds. (7) Communicate effectively with other people with an interest in human and animal health, including the general public and key policy makers.
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Higher Education Research Network Journal

Prizewinning Essays

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Editor: David B Hay

ISBN 978-0-9558633-5-6