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This is a copy of a conference paper presented at the *8th International Conference on Education and New Learning Technologies. It will be published by IATED in the Proceedings of EDULEARN16 Conference*, 4th-6th July 2016, Barcelona, Spain, pp. 3340-3347, ISBN: 978-84-608-8860-4. It is available on the publisher's website at:

https://dx.doi.org/10.21125%2Fedulearn.2016.1731

AN INTEGRATED PSYCHOLOGY VIRTUAL RESEARCH ETHICS COMMITTEE

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Abstract

Research and professional ethics are an integral part of every Psychology degree, as this is seen as a key graduate learning outcome for students leaving to become clinicians working with clients and patients. The development of these skills is embedded in teaching, but they culminate in the final year of a degree when final year students must gain formal ethical approval for their final research project. Decision as to the ethical appropriateness of research are made by a Departmental Research Ethics Committee, which considers all research project proposals submitted by staff and students within the department. One of the challenges of this practice is the scale of work involved for committee members (Doyle & Buckley, 2014) who are all faculty members, and the tracking of applications and decisions, alongside the quality assurance required to ensure that all applications are treated fairly and equally. The time involved in performing this work is often underestimated by Universities, and the variety and complexity of decisions requires extensive discussion and negotiation. Traditionally, these decisions are reached by committee discussions, however this presents logistical difficulties as it requires meetings with quorate attendance. The University of Westminster launched a virtual tool in 2014 to facilitate the management of the Research Ethics Committee, to help track the progress of applications and to allow discussions to occur and be managed virtually. The Department of Psychology adopted the tools in September 2014 to deal with all ethics applications. Here we report on how this virtual committee has affected the role and practices of a working committee that deals with over 300 applications per year, and how an online ethics procedure has facilitated an integrated developmental approach to ethical education.

Keywords: Ethics decisions, committee discussions, student research projects, learning outcomes.

1 INTRODUCTION

All academic higher education institutions are actively engaged in research as part of the drive for knowledge and to inform the teaching of their students (www.hefce.ac.uk, 2016). The need for ethical approval of the research undertaken by both staff and students within academic institutions is an integral part of the research process, and is particularly important where research involves the use of human participants. The process of reviewing research proposals and granting ethical approval is usually the remit of a Research Ethics Committee (REC), which has a pivotal role in the smooth running of research to ensure that it conforms to expected ethical norms and standards. Within this remit, the purpose of the REC is to ensure the protection of both researchers and their participants while also promoting ethical research practices and protecting the reputation of the academic institution within which they operate (Doyle, Mullins & Cunningham, 2010) [1].

Ethical competencies are seen as central to the training of undergraduate students studying psychology, as they go onto caring profession whose focus is on interventions on the behaviours of others, including a range of potentially vulnerable clients and patients, such as mental health patients and children. In addition to professional ethics, these students need to develop the research skills necessary to undertake original research in both their degrees and their future careers. An important part of this process is the development of a 'research disposition' (Bell, 2014) [2]. This includes the development of intangible research skills such as due consideration of ethical issues which may impact on the research process. In order to support this ethical development in students and to ensure the safeguard of participants, and in contrast to other disciplines, where only higher risk research requires review, the BPS expects all student project to be reviewed for ethical suitability.

The British Psychological Society (BPS) guidelines for conduct and the code of ethics can be found in a series of publications available from the BPS website, and include the Code of Ethics and Conduct (2009), the Code of Human Research Ethics (2014), and Guidance on Teaching and Assessment of ethical competence in psychology education (2015) (www.bps.org.uk). The basic tenets of these guidelines are respect for those individuals who participate in psychological research, including issues

of privacy, confidentiality, informed consent and debriefing. These codes of practice must be taught to undergraduate students in the first instance, and then implemented and demonstrated by them in their research designs and applications for approval to the REC. Prior to embarking on the research for their final year dissertations, students must make an application to the REC detailing the design of their proposed study, and outlining their proposed sample of participants and what they intend to do with them. Students must demonstrate that within their actions of collecting data, they will be fulfilling all of the standards agreed within the BPS codes of conduct. The role of the REC is to review all applications and either give approval, or guidance as to what aspects of a research proposal might need addressing before final approval can be given.

Like many psychology departments, the department of Psychology at the University of Westminster has a departmental Psychology Research Ethics Committee (PREC) to deal with all applications generated by its staff of students. Chaired, managed and composed of psychology faculty, this is a sub-committee of the university level University Research Ethics Committee (UREC). At the University of Westminster, all psychology research ethics are considered at the departmental level, with the exception of collaborative or funded studies, or those taking place in the NHS, in which case ethical approval must be gained from NRES, the UK's National Health Service's (NHS) National Research Ethics Services which are part of the National Research Authority (McDonach, Barbour & Williams, 2009) [3]. The departmental committee is formed of a Chair, Deputy Chair, administrator and 12 members who are selected to provide the range of expertise to cover common psychological research practices and methods. In addition to considering individual applications, the committee has a governance role over ethical practice and procedures within the department, and ensure that policies are up to date with BPS and University practices. The University approach is to filter all research into low ethical risk (class 1) or above minimal risk (class 2), with a requirement for all class 2 research to gain ethical approval. This contrasts with the practice in the Psychology department where all applications are considered formally.

The extensive work generated by the requirement for all psychology student research projects to be considered has led to an efficient and streamlined procedure to manage up to 250 applications per academic session. First, applicants must complete form A to provide basic information about the planned research, describing their intended participants and recruitment strategy, rationale and methodology. The form includes a risk assessment checklist whereby one or more "yes" responses identify the research as higher ethical risk potential and the applicant must provide additional information in from B, along with any associated materials such as interview guides or questionnaires. Applications filtered into Class 1 (low risk) by this procedure were initially streamlined to be considered by 2 members of the committee, whereas Class 2 (potential risk) applications were put on the agenda of the next available full committee meeting. In the case of undergraduate students, the research supervisor's approval is considered equivalent to a committee member's review, as all supervisors are professionally accredited psychologists.

Typical ethical approval procedures rely on a combination of one or more forms to be completed by the applicant and submitted to a REC for peer review and eventual approval at one of a number of scheduled committee meetings. The process has several drawbacks, including timing for applicants as RECs might meet once or twice per term, workload demands on committee members, who are themselves active academics and researchers, bureaucracy in the extensive paper trail generated which is difficult to audit (Doyle and Buckley, 2014) [4], and frequently a lack of transparency for both applicants and committee members. If an application is incomplete, or provides insufficient detail for a committee to make a decision, it will typically be returned to the applicant for resubmission at a later meeting, leading to delays in research and yet more paperwork and researcher frustration. The only recourse for accelerating an application is a Chair's action, which risks reducing the rigor of the review process.

In 2014, the University of Westminster embarked on an innovative project to address some of these issues by designing and subsequently introducing an online system to support its ethical review process. Initially aimed at researchers, a pilot was extended to the psychology department's taught undergraduate and postgraduate research projects. The intention was to substitute the existing pen and paper forms and procedures with an online content management system with customised workflows and approvals to replicate existing processes as closely as possible, while enhancing them by addressing the drawbacks, specifically the bureaucracy and the lack of auditing. To our knowledge, this is the first system of its kind to replace the currently paper-heavy, bureaucratic processes involved in ethical approval; the most significant element of the system goes beyond the document management and the approval processes, it is its facility for remote, asynchronous committee

discussions and votes, which have the potential to completely overhaul the way that RECs currently operate. In addition to its operational value, we have the ability to accurately quantitatively and qualitatively monitor and evaluate a wide range of REC related activities, that have never previously been recorded (de Jong, van Zwieten and Willems; 2012) [5]. The system has now been fully operational for 2 academic years since October 2014 and here we present initial usage data and an evaluation of the system based on initial records.

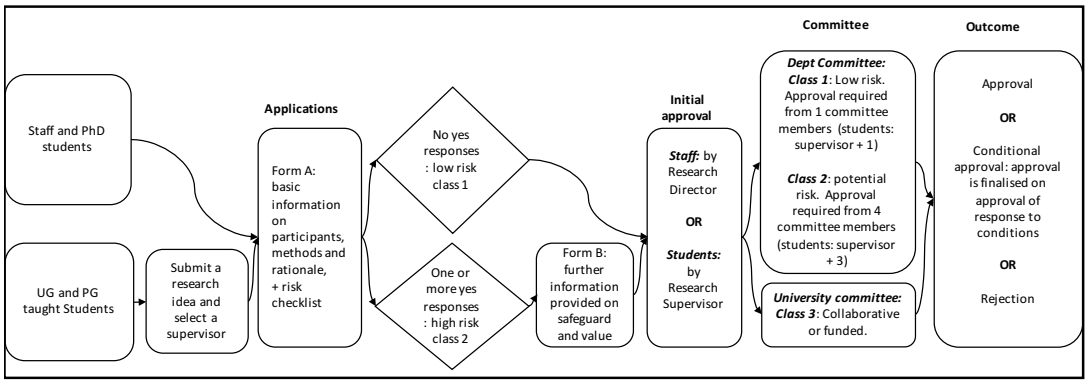

Figure 1: Diagram of the Westminster University Psychology Research Ethics Committee approval procedure for staff and students

2 METHODOLOGY

The Virtual Research Environment (VRE) was designed in collaboration with HAPLO (haplo-services.com) to deal with applications from 4 separate classes of applicants, undergraduate students, taught postgraduate students (MSc), PhD students and staff. In the case of taught students, the VRE applied only to their major research project, and this meant that the workflow requirements were different for taught students and research staff or students, as reflected in Fig 1. There were several issues identified early in the design process, 1) the approval process for these two groups was different and 2) the approval process for taught students relied on a supervisor acting as a gateway between students and the committee. The pen and paper system relied on supervisors physically signing a paper form, however the new system needed a mechanism to allocate students to supervisors. As a consequence, a new process was built into the workflow to become integral to the ethics application procedure. The standard ethics approval procedure was adapted by including an additional activity for taught students, whereby upon their first log in, students would be asked to provide a research topic summary and select a supervisor from a drop down selection of staff available (see Fig. 1). This generates a request for approval first from the chosen supervisor, then from the research module coordinator. This new stage was designed to replicate the existing procedures as closely as possible, while providing the system with a supervisor for each student without the need for manual data entry by an administrator or faculty member. The association of a student and supervisor are essential to the permissions rules built within the system, but this also created the opportunity for supervisor to provide ongoing feedback to the students, thus facilitating the students' development.

Once a student has had a supervisor approved, they are free to begin an ethics application. This element of the VRE, shared by students and staff, is an online version of the Form A previously used in paper form, requesting basic methodological information and rationale for the proposed study. This form includes an automatic ethical risk checklist designed to filter the application towards submission (low risk, class 1) or towards completing Form B (class 2) where more detail on ethical management can be provided and a final checklist is completed. Applicants can append additional documents such as participant information sheet, informed consent documentation and materials by attaching them to their application. Once the form is complete and submitted, the VRE will automatically forward it to their first approver (research supervisor for students, research director for staff), then onto the REC. The REC officer (Chair or Deputy) is now able to either return the form to the applicant or their supervisor with comments if the form is incomplete, progress it to a virtual or a scheduled face to face committee, redirect it or approve or reject it.

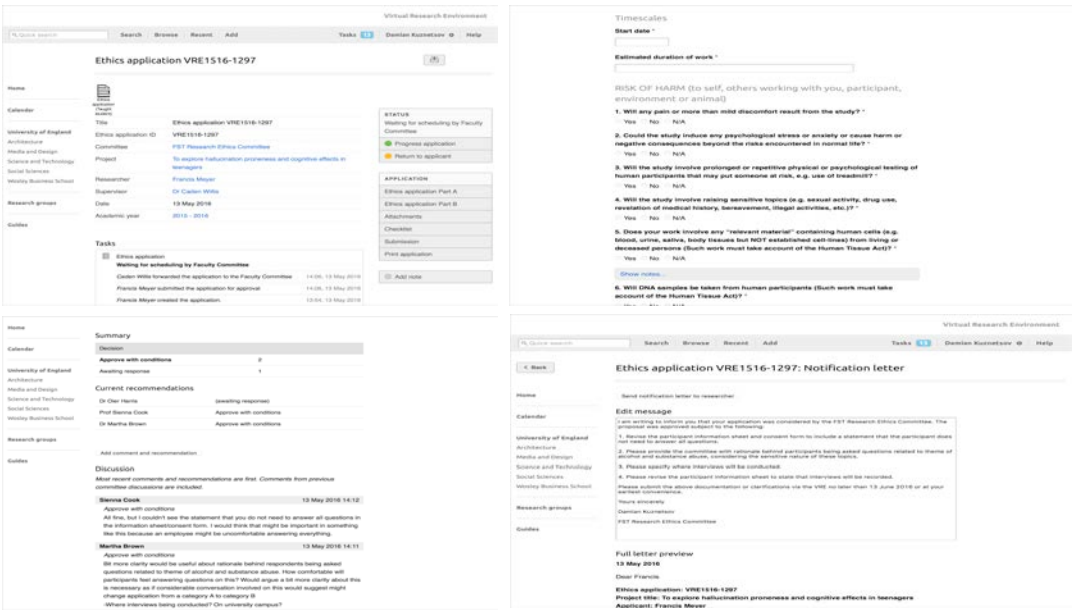

Figure 2: Screenshots of the Ethics Application User Interface – initial proposal, ethics tick-box, committee discussion and approval letter

Table 1 summarises the key features provided by the VRE. An important issue for the developers was to create a system which mapped precisely onto existing practices and policies so that no changes were required. A key enhancement for the busy PREC included the creation of a virtual committee discussion tool, which allows the committee chair to select a sub-committee for a given application and invite them to contribute their comments in a shared online space (see Fig.1). This facility is enhance with a voting tool for committee members to select their decision alongside their comments. Flexibility is afforded with the ability for the chair to alter the committee membership after voting has begun, in instances where a committee member might be unavailable or declare a conflict of interest, of in a sub-committee cannot come to an agreed decision and additional contributions as necessary. Once discussions and votes are concluded, the committee officer is able inform the applicant of the decision instantly, including detailed conditions or comments as required.

The management of such a busy committee has been greatly enhanced with a tasks tool which provides each committee member with a personalized, live list of tasks and email alerts. In the past, a frequent concern from applicants, supervisors and research coordinators had been the lack of transparency of the ethics procedure, as no information was available for long periods of time. The VRE provides a live status update on each application profile, including stages of deliberations. Similarly, the live aspect of the online tool has eliminated the bottleneck that was created by the need to await committee meetings, now applicants receive notifications as soon as their applications have been considered (see Fig.1 for an example), and they can respond to queries and conditions immediately.

Table 1: summary of the replacement and augmentation features offered by the Virtual Research Environment compared to previous procedures.

Previous practice	Issue	Virtual Research Environment
Pen and paper form, submitted by hand to staff member, then onto project coordinator	Forms were misplaced, the log was subject to human error, and forms couldn't be tracked through the process.	Automatic registration of project students into the VRE from student records. Applications are created and kept in the VRE, accessible by all stakeholders (applicant, supervisor, REC officer, research coordinator)

Figure 1 is now font 11Informal paper form submissions were logged in a spreadsheet by an administrator, forms were kept in a filing cabinet.	Forms and the log were only available to the administrator who was the gatekeeper to the records	All actions related to the application are logged and visible on its online record
Student research projects supervisors were allocated by students requesting a signature on a paper form. They frequently approached multiple supervisors.	Supervisor allocation was extremely difficult to track, confirm or monitor	Online allocation and tracking of research project supervisor, supervisors pre-set a quota of supervisory availability in the VRE.
Personal communication between research module coordinator and REC chair	supervisors and coordinators couldn't check whether approval had been granted or see the application	Online monitoring tool for research module coordinators
Ethical approval of student projects was audited upon submission of the work during marking	Students could carry out research without ethical approval,	All stakeholders have access to the forms and outcomes in the VRE
Manual checking of forms to ascertain whether students had filled the correct documentation	Time consuming for staff and for students if they had submitted the incorrect form. Also subject to human error	Automatic checklist filtering access from Form A to Form B
Paper form, submitted to Chair of ethics committee	Applications not systematically archived, subject to human error	Online form allows for automatic logging and archiving
All committee business was conducted in scheduled committee meetings, or ad-hoc	Consideration and approval of applications subject to committee scheduling	Committee discussions take place online asynchronously and in response to application submissions
Committee business was dependent on availability of committee members to attend, to reach quorate	Committee meetings were frequently rescheduled because of staff availability issues, and failure to reach quorate, creating delays to decisions	A live online task list for committee members to access at their convenience
Committee meetings, approximately 6 times per year	Time limitation	Committee members receive email task notifications for outstanding activities including new application submissions, invitations to contribute to committee discussion, notification for the chair of committee members contributing to discussion
Supervisors and students had to wait to receive approval, there was no communication as to the progress of the applications	Approvals could typically take up to 8 weeks to process (no data are available on exact turnaround times for paper applications)	'Up to date' information on stage of proceeding available to students and supervisors
PDF letters prepared and emailed by an administrator	Subject to administrator availability	Automatic generation of notification letter (approval, conditional approval, rejection)
Committee documents were saved on a shared drive and disseminated by email	Documents were duplicated, relied on administrator to disseminate documentation	Online committee document repository and meetings scheduling and reminders

3 RESULTS

The online system allows tracking and auditing of applications, providing quantitative data on the number of applications considered by the Psychology Department Research Committee and how long it took to reach a decision on each. Table shows a summary of these data for the 2 academic years

since its implementation, 2014-15 and 2015-16. A total of 536 applications have been considered in this period, comprising 444 Class 1 and 98 Class 2 applications (class 3 applications are considered by UREC). The number of taught student applications is determined by the number of students taking a research element to their course, as it is compulsory for them to obtain ethical approval for this work and the VET is the only method available hence the total number applications per year remains relatively unchanged. It is worthy of note however that the relative proportion of class 2 applications dropped from 60 to 38 from one year to the next.

The average time taken by PREC from application submission to the outcome being communicated to the application was 11.24 days for Classes 1 & 2, this was in sharp contrast to the 111.5 days taken by UREC to consider the 2 Class 3 applications. Overall, class 1 applications were generally quicker to process than class 2 applications (10.36 vs 12.12 days respectively), reflecting procedural differences whereby Class 1 require only one committee member to approve them in addition to the project supervisor, whereas class 2 applications require 3 committee members for approval. Similarly, taught PG applications took longer than UG applications to process, probably a reflection of the time of year when these occur, as PG applications come during the summer and the summer, when committee members are less available.

A year on year comparison suggests that the process has become quicker, from 15.13 days in 2014-15 against 7.36 days in 2015-16. Consideration of the standard deviations indicates that the variation in time taken to make a decision reduced dramatically from one year to the next (34.09 to 9.53 for PG applications). This suggests that staff have become more efficient at monitoring and using the system and at dealing with more complex applications. This is also commensurate with the introduction of additional functionality for 2015-16 which allowed the committee rep to return incomplete or problematic applications to the applicant for resubmission before progressing it onto the committee for discussion. A direct consequence is that only complete or suitable applications are now considered by the committee members, allowing much faster decision making and fewer conditional approvals.

Table 2: Total number of applications (by Class and Applicant type) considered by the Psychology REC in academic years 2014-15 and 2015-16 and mean number of days elapsed between submission of an application to the committee and a decision being returned to the applicant.

2014-15	**Class 1**		**Class 2**		**Class 3**		**Total**
	N	*Days (SD)*	*N*	*Days (SD)*	*N*	*Days (SD)*	
UG	137	7.7 (16.03)	33	14.55 (15.66)			**170**
PG	67	13.5 (34.09)	24	25.30 (33.48)			**91**
PhD	4	19.75 (8.13)	2	12.50 (9.20)	1	103	**7**
Staff	9	11.7 (13.37)	1	16.00			**10**
Total	**217**	**13.16 days**	**60**	**17.09**	**1**	**103**	**278**
2015-16	**Class 1**		**Class 2**		**Class 3**		**Total**
	N	*Days (SD)*	*N*	*Days (SD)*	*N*	*Days (SD)*	
UG	170	4.89 (9.98)	26	9.96 (10.37)	1	120	**197**
PG	47	11.14 (9.53)	3	5.5 (7.78)			**50**
PhD							**0**
Staff	10	6 (4.7)	9	6 (3.38)			**19**
Total	**227**	**7.58**	**38**	**7.15**	**1**	**120**	**266**
Grand Total	**444**	**10.36**	**98**	**12.12**	**2**	**111.50**	**544**

4 DISCUSSION

We have presented an overview of an innovative online tool which has replaced and augmented what were paper-heavy and bureaucratic activities of the University of Westminster's University and Departmental RECs. The system, introduced in September 2014, has afforded the opportunity to audit and monitor REC activity not previously recorded. Initial data from the first two years of activity suggest that the system has accelerated what was a slow and laborious process, as timing data revealed a year on year shortening of decision time. The data from the new system cannot be empirically compared to previous practices as these data simply aren't available, and there was no

mechanism available to collect them, however it's the first empirical evidence reflecting the sheer volume of work of this committee, highlighted by the number of applications considered (444 over 2 academic years). The addition of monitoring and auditing tools has ensured that supervisors and research coordinators are now able continuously monitor the progress of applications and provide early interventions where necessary. The system has additionally offered a number of unexpected educational enhancements, as well as challenges, which we present here.

The frustration caused to staff and students by delays in ethical approval are clear from Kumar and Pilling's (2015) [5] commentary, and these were equally voiced by faculty in our department over several years. The most obvious benefit of the new system has been the reduction in decision time for all applications, but especially the more complex Class 2 applications, as evidence by the data currently available for the 2 years since the introduction of the system. The data show that in 2015-16, both class 1 and 2 applications were processed on average in under 2 weeks. This is a great achievement given that prior to the implementation of the new system, the Committee sat in quarterly face-to-face meetings to deal with Class 2 applications using in-person discussion as a means for granting ethical approval. The impact this has had on previous paper-based and formal committee procedures is evident without the need for empirical data, simply based on informal staff and student feedback and the smoother running of student research projects generally. Future research should consider the impact of current ethical practises on staff and student satisfaction and research productivity.

The time element also impacts on committee members, for whom the commitment can be large with the numbers of applications generated within a psychology department. With no existing audit of the real time required to carry out committee duties, the allocated hours in job descriptions are most likely significantly underestimated (Doyle et al, 2010)[1]. Finding suitable timings for committee meetings which allow a quorate of members to attend has always proved difficult for members with high contact teaching commitment, and again this has frequently led to ongoing delays in considering applications. The VRE has replaced our previous physical committee meetings with asynchronous online discussions. The benefits have been enormous, not least because applications can be considered from the moment they are submitted to committee, and because committee members can still contribute fully to discussions remotely, without the need for face to face scheduled meetings. It only takes moments to consider an application then share an evaluation and proposed decision, each committee member can now do this remotely in their own time. The outcome is that full discussions can take place in a very short time, with many decisions for low risk simple applications being completed within days, sometimes even hours.

A number of authors have suggested that the shift in ethics governance seen over the last 15 years from researchers being trusted to work following fundamental professional norms towards a more paternalistic system, based on committees approving and policing the work of their peers, is leading to increased distrust between researchers, ethics committee members and administrator (Allen, 2008, [7] Baron, 2015, [8] Doyle et al, 2010) [1]. In addition, it's likely that the need to satisfy complex ethical requirements is inhibiting research. One unexpected outcome of the virtual committees has been that the purpose of face to face meetings has been altered to become about governance and quality assurance instead of considering individual applications. Agenda items now include discussions about the suitability of the application documentation, ethical procedures and processes and training (Egan, Stockley & Lam et al, 2016) [9]. Quality assurance is also addressed by adding controversial or complex applications to the agenda for discussion, with a view to regularly evaluating core ethical concepts and how these are reflected in the departmental procedures and documentation to ensure parity when considering similar applications. This shift in the role of the committee has been congruent with a shift in the relationship between researchers and the committee, from distrustful and paternalistic, towards something more collaborative and developmental.

5 CHALLENGES

As this was a developmental project a number of critical issues were addressed as they arose, while more complex ones have been scheduled for inclusion in the next version due to be released in September 2016. Transparency was a key innovation of the system, however in practice it has become clear that the level of disclosure to stakeholders must be carefully managed to avoid it becoming a hindrance. A feature of the flexibility of the system is the reliance on committee members contributing to discussions in their own time. This is dependent on their due diligence and responsiveness to requests for actions, however some staff may be busy on other scholarly activities and therefore not as responsive as others in the process. There is currently no alert when applications

are left hanging, by a member of committee not considering an application they have been invited to comment on, leading to occasional delays.

6 CONCLUSION

The University of Westminster's VRE is coming to the end of its fully operational second year of providing an online virtual ethics committee resource both for staff across the university, and staff and students in the psychology department. Overall the introduction of the VRE has been a resounding success, reducing decision times, introducing transparency to all application stakeholders, and providing an online virtual replacement for scheduled face to face committee meetings. Through its archiving facility, the system is now proving a source of extensive data that can lend itself to analysis and monitoring to review and enhance REC procedures. With the risk of current ethical processes becoming a tickbox exercise, the streamlining provided by the VRE affords the opportunity of encouraging and facilitating a more iterative and reflective process.

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Dr. Donna Taylor is currently the Deputy Chair of PREC at the University of Westminster.

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