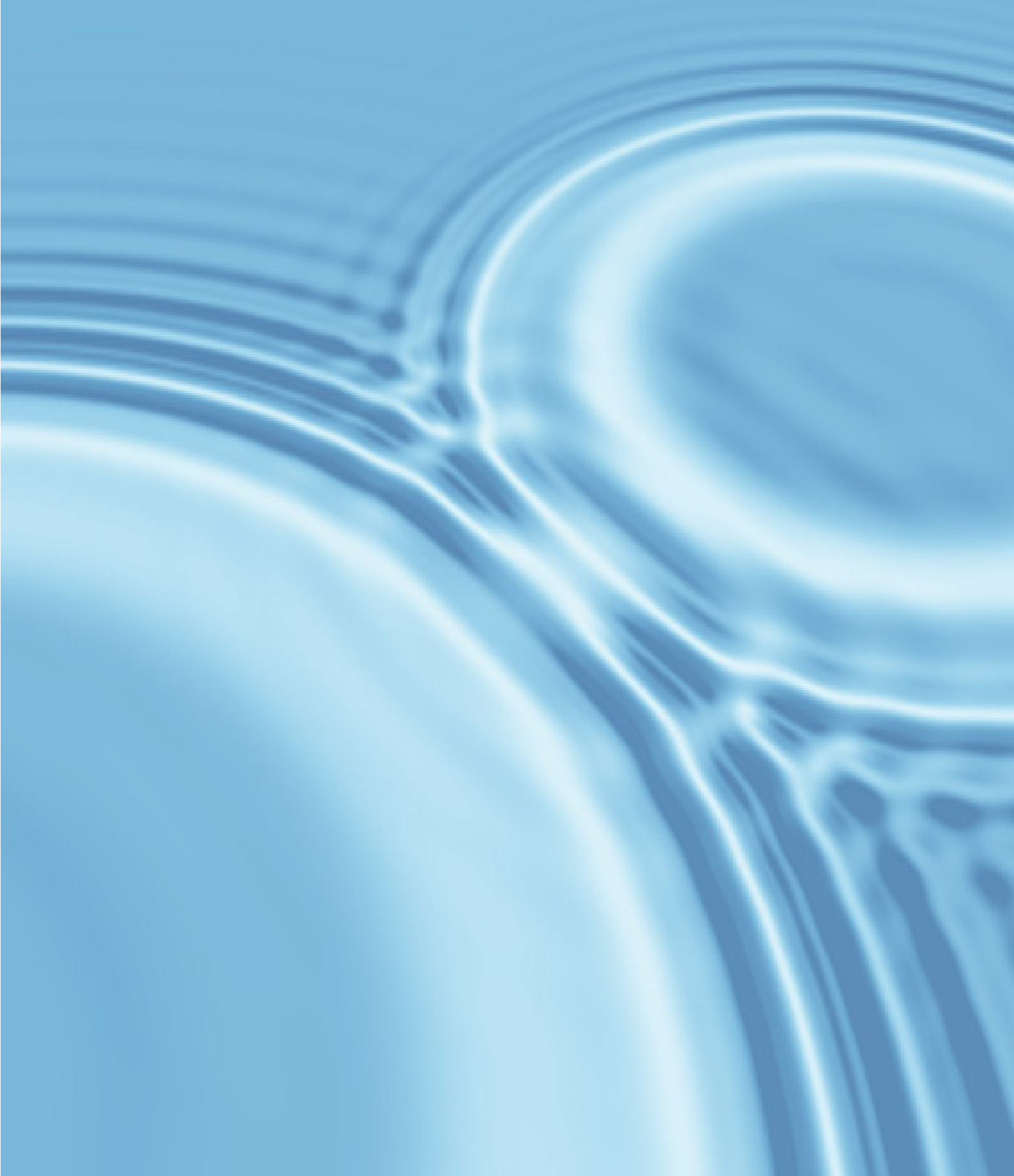ISCP MANAGEMENT GROUP JUNE 2012
ISCP EVALUATION REPORT

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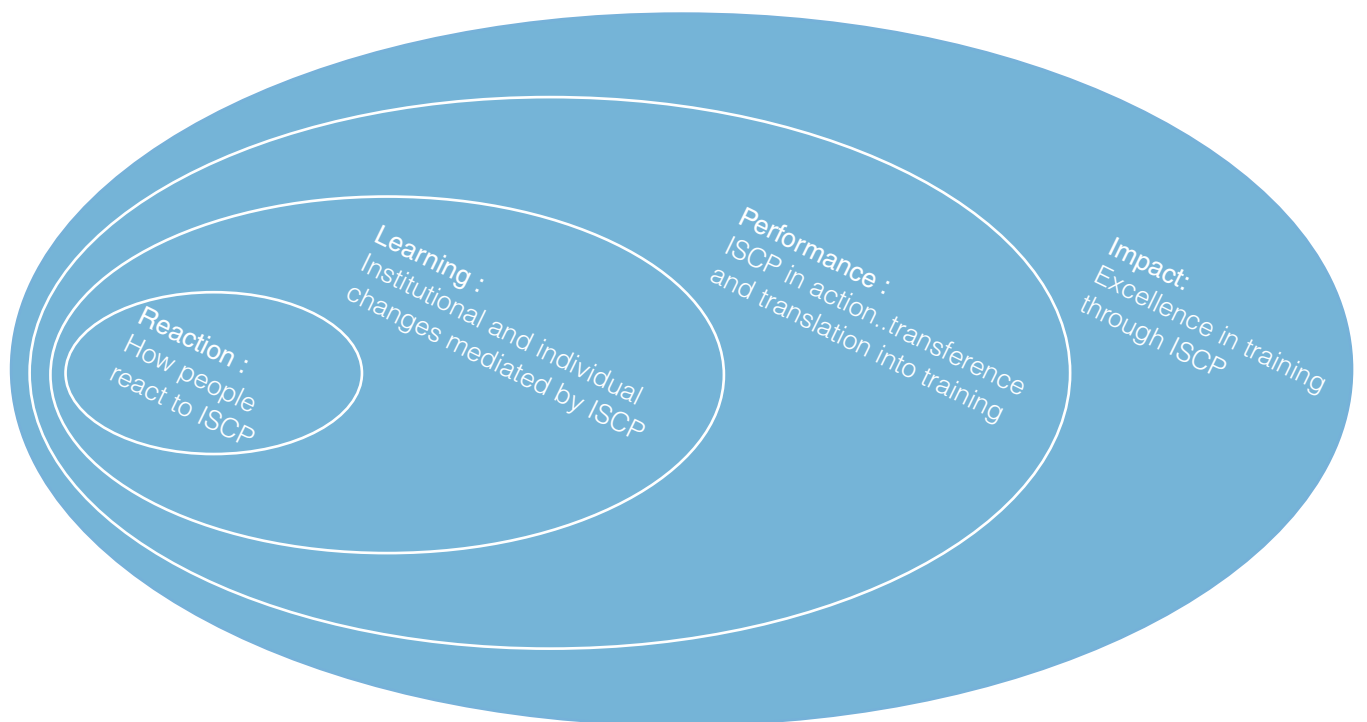
ISCP Evaluation Report
June 2012
Draft (Narrative only)
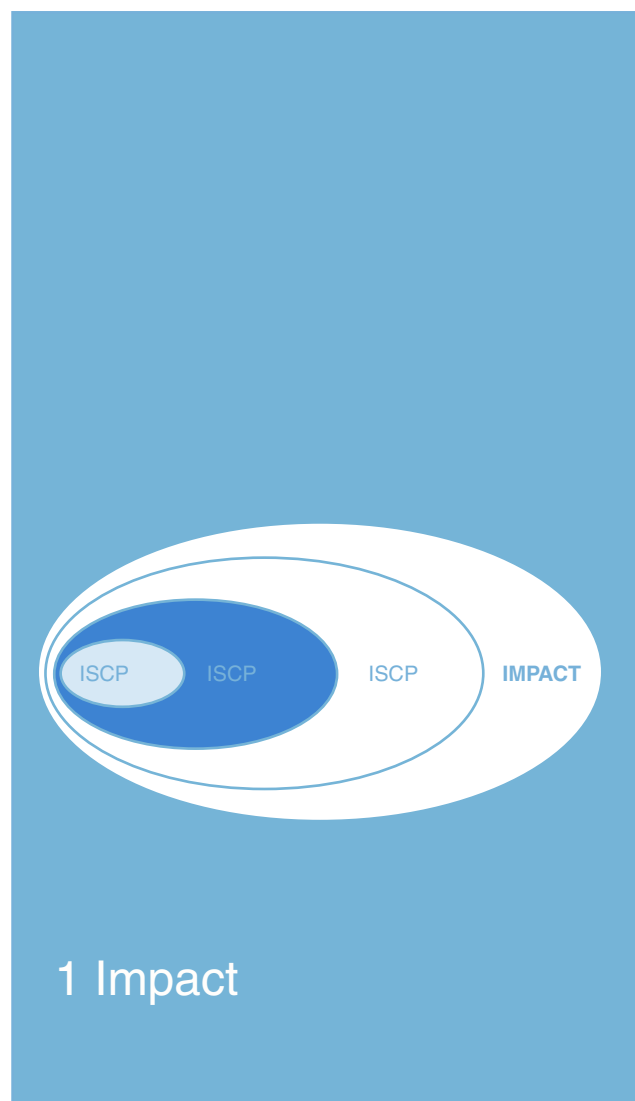
Introduction

When you begin to evaluate something as complex as ISCP, you worry that your methods will never be comprehensive or rigorous enough to do justice to the technical, personal and educational aspects of the endeavour. Rather than fret about this methodologically speaking, I have asked a large number of questions about ISCP to as many people as possible who use, live and work with ISCP. My rationale for this being that what is important to learn about ISCP will come to the surface naturally during the iterative process. To paraphrase Roger Neighbour's (1992) axiom, 'what matters about ISCP will get noticed, and what gets noticed matters.' In order to give this evaluation narrative structure I have made use of Kirkpatrick's evaluation model (1959). This model comprises four levels and each level measures a different but complementary aspect of ISCP development and implementation. The levels are: Reaction, Learning, Performance, and Impact and these notions are annotated in the nested diagram below.

Reaction :
How people
react to ISCP

Learning :
Institutional and individual
changes mediated by ISCP

Performance :
ISCP in action..transference
and translation into training

Impact:
Excellence in training
through ISCP

1 Impact

Excellence in Surgical training

1.1 Getting new ideas adopted by the medical profession, or any profession for that matter, even when they are plausible and potentially fruitful, is difficult. Innovation and change can be a slow process, but when Royal Colleges feel that they have to make up for a real or perceived deficit in training support and innovation, then it is reasonable that they might look for ways to make a direct and speedy impact on the training scene. Indeed, not only introduce a new way of training but actively facilitate its assimilation and accommodation into training organisations, preferably in a format that is transmittable, direct, highly visible and different from anything else that has been done before. Evaluating the impact of such training programme innovations, according to Kirkpatrick (1958), is the highest level of evaluation and often the most difficult to achieve. However, in the case of ISCP, this has been the easiest part of the evaluation because organisationally, personally and professionally, ISCP has had considerable impact on the surgical community.

1.2   To introduce a training innovation such as ISCP, speedily and systematically, trainees' and trainers' prior conceptions of 'surgical apprenticeship' had at least to be adapted if not displaced by any new system. The apprenticeship metaphor of surgical training was viewed by people inside and outside of the profession as being in need of change. The general sense of dissatisfaction with apprenticeship and the need for something new was very helpful in preparing the ground for ISCP. However, the pace of change and the strength of the ISCP innovation were perhaps not anticipated by those who were used to a more leisurely procession from the old to the new. They could be forgiven for this misconception as most innovations in socio-medical organisations have indeed been evolutionary. But, ISCP was a different type of innovation and the strength of its impact was not just a series of ISCP induced adjustments at the edges of established practice and received wisdom. But changes that would colour and condition the phenomenology of ISCP up to the present day. Even after five years of use, ISCP's ontogeny often seems to be recapitulated in the way that it is perceived. Above all, in the externally motivated and bureaucratic coming together of 'hard' training technologies, the 'E' in e-portfolio, that could be communicated efficiently and directly to individuals from a central source via web based, transparent and accountable training systems. This in contrast to the prior tradition of 'soft', socially mediated, customised and idiosyncratic training initiatives constructed within the surgical community by practitioners at local and regional level.

1.3   Much has been written about social structures and the diffusion of training innovations. The influence of hierarchies, product champions, early adopters and resistors of change, all undoubtedly played a part in the acceptance or rejection of ISCP in surgical training centres around the UK . From this perspective, influential College members were clearly opinion leaders and the enthusiastic regional specialists were often highly effective change agents supporting innovation, or on the flip side, presenting arguments against ISCP. ISCP is alive and well in 2012 and it is tempting to say that pro ISCP surgeons obviously carried the day. But this would be a rather simplistic interpretation of the dynamics of change. The issue is not whether one group won or lost but how the rules of engagement were defined and driven by educational and accountability agendas from outside the profession.

> ISCP has illuminated the nature of communication and control within the surgical training community. ISCP as an innovation explored the boundaries of control between the College and its membership…

ISCP caused an examination of the Colleges' role as an opinion leader, open to external and internal influences including the policies of governmental agencies and the duty to innovate using their central position of power, to communicate and influence trainers and trainees. However, in the milieu of ISCP development the limits of a centrally managed process of training, dissemination and resource provision would also be highlighted and tested. For many, ISCP reinforced and indeed reflected the centre - periphery model of College interventions and practices and in questioning the efficacy and appropriateness of ISCP they were challenging the limits of College control and governmental influence on surgical training at grass roots level.

The instrumental power of the ISCP e-portfolio was embodied in the duality inherent in its designation which blurred the edges of electronic (hard technology) with the relatively fuzzy, under conceptualised qualitative notions of a training portfolio (soft). In the 'Nintendo' model of marketing this allowed the speed of innovation to be enhanced by appealing to those who see a fast technological route to change and enhanced training management. Unfortunately, this is often accompanied by a concomitant underestimation of the ongoing cost of managing and maintaining the human software part of the 'product purchase'. In Nintendo terms, presenting a relatively cheap game station platform with 'free' games that win market share quickly but subsequently commits users to buying very expensive software there after.

1.4   Surgical training has for decades been reliant on a society of practitioners that is by its very nature permeable to innovation and new ideas. The rise of modern surgery is testament to this fact. However, at the inception and introduction of ISCP, surgery along with many professional societies was changing under external pressures from government policies and government agencies. The rise of QA, concepts of accountability and public safety would together open up so called closed societies to public account and… in the case of medical training ….the PMETB and now the GMC. However, an unintended consequence of external political emphasis on QA was, in professional training terms, the selection or adoption of innovations that offered transparent, outcome focused, competency based, measurable, reportable, national systems where explicit training goals derived by consensus, would make managers, providers and regulators of training accountable for the quality of the product.

The political message of accountability, dissatisfaction with existing training methods, the perceived need to disturb the equilibrium of apprenticeship methods in surgery and the skills of educational technologist combined with specialists holding outcome centred, black and white, practical, empirical views of training, would create the training modality of ISCP. When the emergent format of ISCP was combined with the collective authority of the Colleges the impact of the ISCP was assured.

1.5   In the Prince, Machiavelli notes that there is nothing more difficult to plan, more doubtful of success and more dangerous to manage that the creation of a new order of things'. There is no doubt that the introduction of ISCP was a courageous and responsive move by JCST who were not unaware of the challenges of change. It was entirely correct given the cultural and social climate surrounding ISCP that the introduction of ISCP could be carefully communicated to its intended audience using what was seen as an evolutionary rather than radical change model. ISCP at organisational level has been radical and the only limiting factor on its impact and its greatest 'weakness' as a revolutionary change agent, was that it lacked a metaphor for practice and a fruitful pathway for users to make it part of their own personal and

> In some ways, ISCP was an innovation designed with evolution in mind but in reality, organisations and individuals were ambushed by its powerful impact.

professional persona. The notion that 'the message is in the medium' is an interesting axiom when considering the introduction of ISCP. Not only did the power of electronic communication enhance the pace of ISCP diffusion, combined with the very able translations and support practices of College staff and Regional Teams, there is little doubt that the instant delivery of homogeneous, systematic training curricula and training management systems into regional settings must have been a shock to a system of training that was idiosyncratic, regionalised, heterogeneous and institutionalised around local practices and training norms. Although ISCP was rolled out progressively and with a considerable investment in launch planning it is hard to see how the compression in time of the normal stages of adoption of an innovation could have been avoided. The decision making pathway of individuals to move quickly to the bifurcation point of acceptance or rejection of ISCP was probably shortened not necessarily by the lack of launch planning but by the directness, technical and social authority, plausibility and potential of the ISCP message and of course its medium. In some ways, ISCP was an innovation designed with evolution in mind but in reality, organisations and individuals were ambushed by it powerful impact.

1.6   At this point one is tempted to consider the power of the Colleges to steam roller changes to training and to obviate the natural time scale of evolutionary change. But there is also a need to review the importance of strong professional leadership and the marshalling of change agents to be directed with enthusiasm and commitment toward a crucial area of College responsibility. The introduction of ISCP did create dissonance in a resilient surgical community holding a wide range of views about the practices surrounding surgical training. Dissonance and challenge are a necessary feature of change and it is through ISCP that the responsiveness and the dynamics of the surgical training community have perhaps for the first time, been observable and understandable. This evaluation of the ISCP is not just about what could have been done differently or necessarily where things went wrong or went well. This evaluation is also about the ways that ISCP has illuminated the process of development in surgical training and casts a spotlight on the factors that will control the future development of ISCP.

1.7   Surgeons in the 1970s could never have conceived of something like ISCP in the training environment. If they had glimpsed the future, they may have asked… why ISCP?

> ….why ISCP? To which the response might have been, parodying Star Trek, 'we had the technology', 'resistance was futile' and 'we will adapt' .

To which the response might have been, parodying Star Trek scripts, 'we had the technology', 'resistance was futile' and 'we will adapt'. The causal nexus between political, societal, technological and educational factors and the ISCP effect can be seen clearly in today's surgical training experience. ISCP reflects a very strong relationship between its format and the teleological viewpoint that surgical training will and should be capable of adapting to the purposes of external factors, although they are largely outside the practice of surgery. The teleological imperative of ISCP seems to have been determined in large part by a design and development approach with an emphasis on organisational impact and constructed for the sake of ends rather than the means of training. Indeed the disaggregation of surgical tasks into competencies reflects collusion with the idea that by adopting a goal centred system of training management, trainers and trainees will take actions that are directed at an endpoint (CCT) that is achieved in a world of surgical practice largely outside the control of the ISCP system.   A situation akin to saying that by encouraging giraffes to graze exclusively on tall trees, their necks will grow even taller and reach a predetermined length.

ISCP was certainly an adaptive pressure on surgical training but it was not necessarily the only means of achieving training goals.   The central dogma of education theory is often represented by the development of curricula that make goals and objectives explicit (and accountable), the selection of training or teaching strategies linked to those objectives, and assessment methods that reflect fairly the intended outcomes. This paradigm is at the heart of ISCP practice and policy whether you are a trainer constructing a Learning Agreement with your trainee or a TPD reporting to your SAC.

Indeed the educational model above has considerable plausibility for both surgical trainers and trainees. Both know the value of agreeing targets and expectations for the attachment and the clarification of how their objectives can be met in practice at their location and in their service setting. This process is fuelled by dialogue and discussion between two professionals. It is not just a diagnosis of deficit but has everything to do with disclosure of personal and professional stories that reveal training beliefs and surgical values as much as they do other life stories. Neighbour comments on this relationship between supervisor and trainer. *'..the two ascendant models of education as processes either of quest or revelation, which differ in their 'locus of educational opportunity': in the one the locus of opportunity resides within the pupil and the other it is within the teacher. From Socrates we learn a third option.   In the Socratic encounter the locus of opportunity is in the relationship between the two . Here we have the origin of a third model –education as Apprenticeship. The impetus for learning by apprenticeship comes from neither the individual but rather from the relationship between them:'*

1.8   Since the introduction of ISCP, there have been many discussion about the 'old' system of surgical apprenticeship, the social enculturation of the 'hospital mess' and the training charisma of star performers in surgery. These were for many, good times and bad times. However, there is no way back to these days and no real desire to return to a time when there was no accountability in training. There is no doubt that Neighbour (1992) and many others are correct to assert the primacy of praxis and apprentice like relationships between supervisors and trainees, but in 2012 this relationship does need to be managed and supported by systems that record progress and training actions which can be reported and monitored, something that ISCP is well placed to do. However, what ISCP cannot do is replace or remediate the relationship between trainee and supervisor.

It cannot repair the fragmentation of training by EWTR or shifts. But above all ISCP cannot replace or indeed compensate for the willingness of one surgeon to take responsibility for influencing, mentoring and directing another less experienced surgeon. ISCP does not easily provide the metaphorical transference and the fruitfulness to let trainer and trainee research within its systems for a way of working together.   ISCP is the elephant in the room. It has a right to be there in terms of trainer and trainee support, but the cost of its presence is that it has the potential to distort the relationship between supervisor and trainees as much as any European directive. ISCP is not a good facilitator of relationships or indeed training dialogues, it can induce training autism with all the symptoms of impaired social interaction and communication and restricted behaviours. Email/digital communication can deliver immediate feedback but it is not an efficient medium for exploration of views and the sharing of values about training experiences . The 'old' concept of apprenticeship was founded on many of these notion …whether they were a reality or not is open to debate. But what has happened is that the metaphor of apprenticeship has been displaced by ISCP ways of doing in so much that trainer and trainee now have an confusing internal dialogue about how and when and where to train that causes hesitancy and uncertainty in their relationship.

1.9   Throughout this evaluation there were numerous instances of where the analogue, interpersonal world has to provide a 'front end' for the digital systems of ISCP. Typically, the supervisor or TPD who' 'sits the trainee down' and 'we talk about what they want to do and where they think they are coming from and what they feel about their training to date and how we fit into that picture. Then we talk about what they might be able to get out of their time with us and what they should definitely get from the experience'. This then leads to LAs and topic selection but it doesn't start with them and it doesn't end there either. ISCP is not designed to be or can never be a surrogate trainer indeed it is healthy on the part of trainer and trainee to keep an optimal distance from its systems. The way that ISCP is configured by the classic educational objectives model and the disaggregation of tasks into competencies can have a negative impact on the nature of training dialogues but above all on relationships because it can induce a sort of technological isolationism and individualism where you feel as a trainer or trainee, alone with your competencies or lack of them. Indeed although these are spelt out for trainee to some extent by ISCP (although these lack a soul in terms of a personal trajectory of training) the supervisor has real isolation to contend with as they confront the 'loneliness of the long distance trainer' who is neither supported nor similarly guided in their mentorship role.

The fact that they are technically proficient with ISCP and its patterns of suggested trainee interaction (eg initial, mid and final feedback sessions) being no comfort whatsoever when dealing with feelings of personal dissatisfaction, distance and uncertainty as a trainer.   And the response to these feelings ?….rejection of ISCP, ISCP curricular hypertrophy, benign neglect of ISCP systems or collusion with tick box culture.

1.10 ISCP is a training medium, in that it makes explicit the scope and the range of the curriculum, it suggest methods of review and assessment but it has to be used with a health warning. ISCP is designed to impact on training. But impact design enhances certain aspects of training, favouring value judgements about trainees when trainers may not want to be judgmental, driving the student through external influences that make the trainer a monitor rather than a mentor, it has the potential to cast the trainer in the role of a trained assessor and facilitator of WPBA opportunities but not a guide, coach or mentor. ISCP is not DIY surgical training but sometimes the notion of trainees taking responsibility for their own learning (a phrase much used by educationists and critics of ISCP!) and the autonomy of action developed through ISCP use, can have deleterious effects on the relationship between supervisor and trainee. At worst it gives permission for trainees to be set adrift in a laissez faire training contract with ISCP, and at best an uncertainty of action that leaves trainers uncomfortable about the worth of their interventions and how dominant they should be in defining / redefining the training response in their own situation (as opposed to that moderated by the ISCP curriculum structure).

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The design and delivery of ISCP has had the desired impact on the surgical community in that it has become a locus of opportunity for training. It has had a considerable impact on the organisation and structure of training in concordance with the aspiration of MMC and GMC policy. Its wider impact on the delivery of training and its benefit to trainees and trainers is less clear cut.

2 Performance
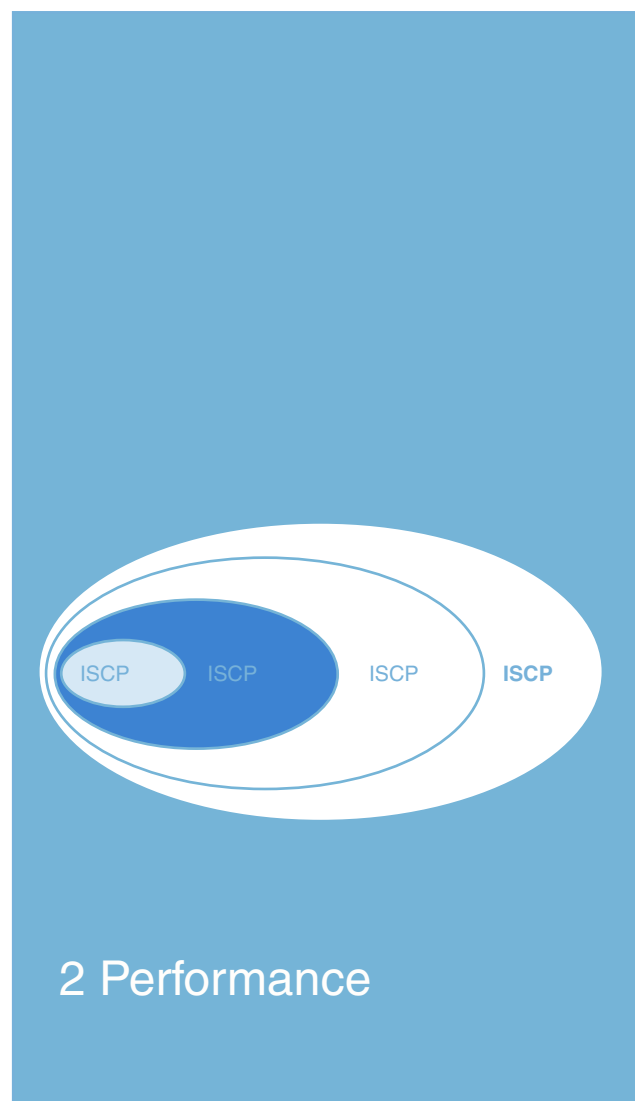
ISCP In action

2.1 ISCP as a training innovation has all the characteristics of what is often referred to as a Centre-Periphery model of change.

ISCP was pretty much fully formed when it launched. It was delivered into regional training centres and the process was centrally managed as were the resources and staff training sessions associated with ISCP.   The power of this model of innovation diffusion is often measured by the energy levels and resources of the group at the centre of the innovation who are indeed often centrally located at the physical and geographical hub of the system. ISCP web based technologies and the e-portfolio system gave the centre an unprecedented reach and scope in terms of this classic centre –periphery model of change. It is interesting to note at this point a common pathology with Centre-Periphery models, for if we accept that ISCP is typical of this type of innovation management then it has some bearing on the development strategies that evolve from this evaluation.

Centre –periphery models are often prone to a sort of peripheral system atrophy when the energy flow of the central organisation either overloads the periphery or finds it cannot meet increasing demands or fails to respond to feedback from the fringes. Like many innovative systems, ISCP met with resistance from established training methods, prior conceptions of training and training processes. In the face of resistance there is always the temptation at the Centre to focus down on the message and the messengers of the system. Ratchet up the power of the technology and the infrastructure to bolster the Centre's confidence that it has the control and power to make the changes work. This approach can be developed in tandem with the more effective management of feedback from the periphery and responsiveness to the issues arising from their experience of the innovation. However, of these two complementary approaches, and when resources are limiting, it not uncommon for the more centralist perspective to win out, especially, when the central educational/technological nexus of something like ISCP holds the political power.

> The affect created by ISCP is of individuals and organisation trying hard to assimilate and explore its range of convenience within their personal / professional behaviours and in local training / service setting

The regional diversity of surgical training is one of its great strengths offering multiple sources of innovation and good practice in a variety of professional and service settings. Recent changes in the organisation of the NHS, modification of Deanery and Local Education Provider's remits have energised local management and organisational systems. Consequently, their permeability and responsiveness to central infrastructural systems, such as ISCP, is changing. The Colleges have invested in systems that support local and disciplinary integration, not least the SACs   TPDs and SEAs and regional teams. However, these initiatives whilst acknowledging the power of local /regional and specialty based groups do not sit comfortably with the ISCP experiment of centrally developed and disseminated innovation. The substrate of growth and real change is the way that local training systems react to ISCP and how their reactions are fed back to the centre as training ideas and ISCP development strategies. Moreover from a peripheral perspective, there is every expectation that local training initiatives will cross specialty boundaries and extend to other regional centres as much as they will be fed back into College systems. ISCP is easily characterised as a top down initiative that offers a solution to surgical training deficits. Cast in a remedial role and a 'one stop shop' for training needs ISCP ecame a surgical trainer wherever it reached a terminal or laptop.

It undoubtedly affected training approaches at ground level judging from the level of discussion and dissonance amongst trainers and trainees that it creates and still creates today. The affect created by ISCP is of individuals and organisation trying hard to assimilate and explore its range of convenience within their personal/professional behaviours and in local training / service setting.

With the arrival of ISCP on the surgical training scene there was a loss of the naïve notion that there was a already a thing called ' surgical training' that was alive and well and doing a reasonable job in theatres and hospitals all around the UK. College interventions in training policy and practice were relatively rare and the SAC groups were in touch with and responsive to local training issues. With its introduction, ISCP created dissonance between national and local perceptions of what comprised surgical training and then, retreated to a level of technical and practical generality that reinforced prejudices about it as a remote and remotely driven process divorced from the day to day problems of trainees and their supervisors on the ground.

> The comprehensiveness of the ISCP design and its total training management ethos dilutes the opportunity and perhaps the desire to match local needs with a set of more heterogeneous training resources offering a 'pick and mix' selection of training support instruments that reflect the behaviours, values and beliefs of trainers

2.2   It is always tempting for managers, when a centrally driven initiative meets with resistance, to strengthen the instruments of dissemination and minimise the amount of actual change. That is, develop ISCP systems to enhance functionality and hence face validity but stop short of measures to analyse and respond to the critical differences between different users and their perceptions of ISCP. But there are limits to this approach and the key message of this reaction is easily lost …not how ISCP can be strengthened and made more efficient, but how might the lingua franca of ISCP and its structures help local training systems transform themselves through metaphors of training that make sense to individuals? The comprehensiveness of the ISCP design and its total training management ethos dilutes the opportunity and perhaps the desire to match local needs with a set of more heterogeneous training resources offering a 'pick and mix' selection of training support instruments that reflect the behaviours, values and beliefs of trainers and trainees.

2.3   E-portfolios are fundamentally integrative and the connection between ISCP, the Colleges and networked training is evident and immediate. ISCP has created a set of networked personas, the networked trainee, supervisor and surgeon. The conception being that through ISCP, complex and diverse activities throughout the UK would be mapped and subsequently reviewed by the Colleges as guardians of good surgical practice and training. This extends College control in a way that was not perhaps foreseen as the technology of networked training and e-portfolios rolled out not in stages but as a single powerful once and for all solution to training diversity and deficit. ISCP is the College 'Task force' on training …but can it really be a national surgical training resource, based on a 'correct' way to train, that trainees and trainers are in turn trained to use and to adapt to their training practices and values. The dilemma for ISCP is whether it is the national surgical surrogate trainer or the facilitator of training development at local and regional level.

If ISCP were to achieve a level of dominance in the surgical community that saw most trainers and trainees adhere to its rules and procedures faultlessly it is interesting to consider what this might involve at a personal and professional level. This is not just about accepting College guidance on training nor about adapting training practices to mirror ISCP processes, it is about trainers and trainers adopting a different persona ….an ISCP networked persona.   The ISCP, networked trainee, has their training set out before them, with content and competencies arranged chronologically and systematically within curricular maps and training plans….. WPBA and portfolio tasks punctuate their practice yet even with this to hand, they can have an extraordinarily weak or even antagonistic conception of and engagement with their portfolio. It is not a part of the social milieu of the work place in spite of its appearance of being rooted in practice. The heart of this paradox lies in the way training personas interact with ISCP. Using the notion of surgical apprenticeship not as an alternative training approach but as a metaphor, then it is possible to see mismatches between ISCP and trainee/trainer and perspectives. In old style surgical apprenticeship, the future training plan was not set out in great detail, it had what Neighbour (1995) refers to as a trajectory, engagement with the community of practitioners was enough to assure ways of working developed, personal networks long term narrative of training plans and competency development was not

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locked into the workplace activity but more in the 'time outs' and reflective times away from clinical work. The apprenticed surgeon would tend toward training activities that could be completed quickly and at the boundaries of existing skills and competencies …. more accretion than accreditation.   Training in day to day practice was most effective and sustainable when the training was frequent, fast and unobtrusive in the sense it did not interfere with the job or task too much. Knowing and doing were the currency of immediate action and separate from reflection and feedback which take more time and careful thought away from the demands of the workplace. Prescribing and systematising feedback and reflection would be less important than assuring the quality of its effects through the next cycle of experiential learning.

2.4   During this ISCP evaluation activity and whilst reading the notes from trainer and trainee discussions, it would be fair to say that one is struck by the bipolarity of feelings about ISCP. Saying that they either love it or hate it is an oversimplification because many surgeons do engage with ISCP at varying levels of practice and functionality. However, engaging with ISCP has a bipolarity that betrays not a rational or emotional like or dislike of the system but a deeper value incongruence between ISCP and its users. With ISCP there is no choice other than rejection or acceptance and in this cleft users feel pressurised. Not pressurised in the sense of having to conform to some external value set defined by ISCP, although there may be a bit of that involved, the real pressure is that ISCP creates a locus of action where you have to regularly and routinely commit to the training process …to being a trainer and being a trainee with goals and agendas that may conflict with who you think you are and how you want to be. Not being or having to become by rote an expert trainer in the same way that you are an expert surgeon, not being seen as competent trainee in the same way that you are a competent person.   The choice that ISCP needs to present to the value system of trainers and trainees, so that it can be valued, is not, use it or loose it, or to revert to some personal comfort zone where ISCP is interpreted in a 'versatile 'way, but to make it the choice between excellence and mediocrity. This is not to say do it the ISCP way because

ISCP is not a surgical training algorithm but a way of developing professionalism in training.

it is excellent but that to engage with it assures the evolution of values and practices within the individual that are concomitant with the pursuit of excellence both in training and surgical practice. ISCP is in this way not a training algorithm but a way of developing professionalism in training.

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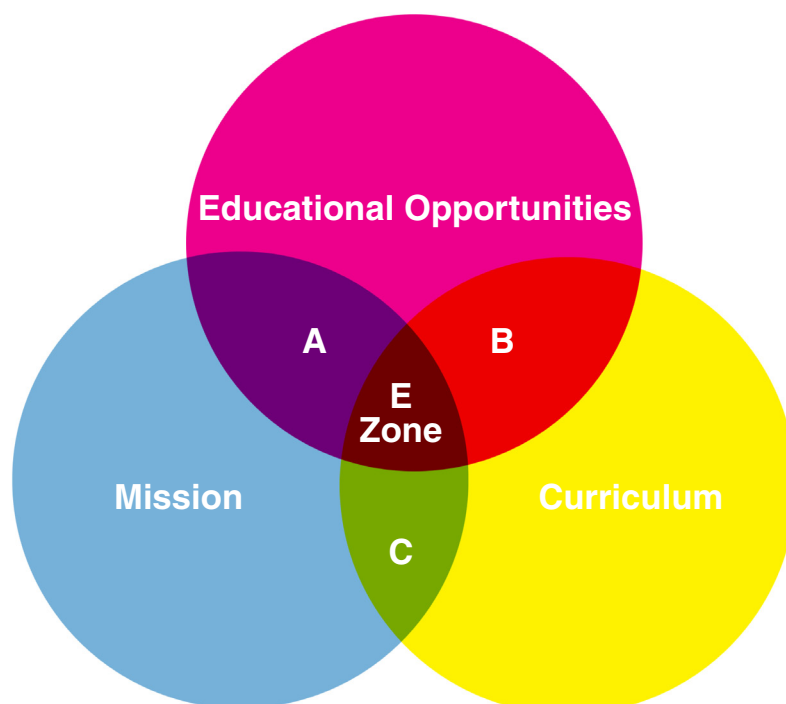
Neighbour (1995) captures this relationship between values and training systems in his notion of the E-zone.

Neighbour's E-zone is made up of Curriculum, for example, the various SAC generated discipline based curricula that populate ISCP; Mission, the training goals of the trainer and the trainee (which may be different from the ISCP curriculum, and Educational Opportunities.

From the Venn diagram above it is possible to see that there are areas where the curriculum lies outside the E or Educational Zone …its content is out of date, redundant or never assessed or reviewed. The mission area equates to some values and aspirations that sit outside the training environment…and Educational Opportunities relate to the resources that neither relate nor are directed at the training curriculum and training activity.

In Area B, in the overlap between Opportunities and Curriculum, Neighbour talks about the 'domain of the paradigm slaves'. In the ISCP context this is where training is carried out with frightening curricular concordance, a set of tick boxes to be filled in like an administrative task or pre ARCP ritual that assures coverage of the curriculum and leaves training highlights and individual achievements in a two dimensional blueprint of activity. Here there is a betrayal and devaluing of the relationship between trainee and trainer.

Area A is where Neighbour says that,' If Area B was the area of paradigm slavery, A is the area of phoney liberation, where rigour, in the name of Trainee-centred learning, is sacrificed to sloth or to a slogan'. In ISCP terms selective inattention to the curriculum or ignorance of its content by both trainee and /or the trainer leads to collusion and an illusion of a free running apprenticeship type training where both parties misconstrue surgical activity and access to patients as training. This is the domain of the surgical logbook slave.

2.4   Area C is a very interesting place for surgical trainees to find themselves. It is a sort of surgical purgatory where the ISCP fluent trainees find themselves intensely aware of what has to be achieved within the training programme (their LAs are complete and their topics defined) yet they lack the wherewithal to negotiate, implement, facilitate or find the training opportunities that they need. ISCP doctrine statements (erroneous) about trainees taking responsibility for their own learning tend to surface at this point but in reality the pressing issue is the way that ISCP can give permissions to trainers and trainees to avoid the underlying problems of trainees who fail to become members of a community of practitioners or proactive trainers seeking training opportunities for their trainees. Shift patterns and EWTD come into play of course but when trainees have not managed a significant number of WPBA or a completed a MSF it may have less to do with access and more to do with opportunity. Opportunity requires a sense of timing, a weighing up of conditions and an awareness of the risks of success or failure that no amount of trainee enthusiasm and curricular awareness will always get right …it needs the personal touch and the expert surgical perspective of the trainer to turn access into opportunities and opportunities into training. It needs praxis and a mentorship relationship between the trainer and the trainee.

2.5   Training in Neighbour's E-zone is perhaps the aspiration of all vocational trainers and trainees. The perfect synergy of limitless surgical training resources, shared aspirations and priorities between mentor and apprentice and a training programme in harmony with personal and professional values. There is no doubt that ISCP and the e-portfolio were developed to enhance the overlaps that make up   the E zone ; improved management and provision of educational opportunities, an explicit surgical curriculum, and the portfolio as a repository of the trainees prior experiences, values and ideas that make up their personal learning agenda.

However, ISCP is driven by curriculum and assessment and is perceived by its users as being deficit driven. The curricular and assessment blueprints of ISCP map the gaps in training and the deficits of the trainees' programmed experiences. This may be a comforting position for FY or even CT trainees in the early stages of their surgical experience but what happens later on with continuous and progressive use of ISCP? In the light of this evaluation, they reject it as a travelling companion, they tolerate it once or twice a year at ARCP, they consign it to course administration duties but above all they distance it from their day to day efforts directed at becoming a surgeon. This is not because they don't understand ISCP or that they are technological luddites. It is because the deconstructed, disaggregated episodic, set piece world of the ISCP does not match their growing aspirations and values at a personal and professional level.

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2.6   ISCP and its attendant instruments of assessment and monitoring do not in reality fully support the value systems of surgical training. Therefore should the structure of surgical training be modified to more closely fit with ISCP?   This may seem inappropriate in the classic sense of 'tail wags dog'. However it would be an interesting thought experiment to conduct. Would surgical training evolve along the lines of flight training where all core skills were learned in simulation environments with routine assessments of performance after every skill was deployed and where the trainee moved seamlessly through the curriculum at a pace determined by their prior performance…eventually going solo, taking charge of a remotely piloted drone for their first flight !!

2.7   ISCP does reflect the wider ecological pressures on surgical training: the inevitable EWTR and shift working systems, but also the drive for accountability and efficiency of cost effective training. There again ISCP might be modified to support the development of the socially oriented apprenticeship style of training relationships apparently preferred by many trainers and trainees. There is no doubt that ISCP has created a situation where people have thought about in more detail and depth what they do when they train and it has made them think about choices and elicited the training values that direct their practice.

This is nothing but a positive feature of ISCP. The issue however is how far we go with this impact factor of ISCP. At one level this might involve enhanced interaction between trainers and trainees through video blogs, enhanced e- communications, e-learning, apps and technical infrastructures and connectivity. More and better trainer-trainer and trainee – trainer interactions mediated through digital technologies. Castells (2000) has pointed out that although this process seeks to network individuals within a society it can and does have a tendency to individualise the social organisation . In ISCP terms does it knit training communities together or does it promote more sparse loosely connected communities of practitioners, enhance trainee individualism or collaborative dependency?

2.8   ISCP networked trainees often do not feel the necessary permissions to engage their portfolio with local training situations because the attributes of ISCP are mismatched with the nature of training. WPBAs are too slow and intrusive, learning plans too general, too distant from day to day practice, and too long term to invest time and effort in, although they may have appeal in time outs away from the wards and theatres.   ISCP tries to create both the reflective and the reactive trainee but the interface is problematic because it tries to do too much in one package and tries to homogenise the training experience. This tension also reveals itself in the way many trainees reify their clinical logbook which although 'only' a record of activity takes on many of the attributes of an 'apprenticeship portfolio ' being workplace grounded, cumulative, easy to use and record data, controllable, unobtrusive in day to day use and reflective of pace, action and activity . In short when compared to some ISCP portfolio tasks, training events that is not entailed, dragged out, educationally pigeon-holed and requiring assessment!

ISCP traps the trainee in a form of workplace based reality but all the time needs them to be free of its confines

The climate of surgical training is not naturally filled with *a priori,* medium to long term procedural tasks and *post hoc* assessments. ISCP is relatively intolerant of the very behaviours that abound in surgical training ….doing what needs to done quickly and within the confines of time and limited resources with a realism and immediacy that make the abstractness of reflection and delayed feedback and the decomposition and deconstruction of competency sometimes feel quite bizarre. …ISCP traps the trainee in a form of workplace based reality but all the time needs them to be free of its confines.

In contrast to what was considered the style of surgical apprenticeship, networked surgeons do not feel that they should invest the time and effort in an e-portfolio system that has none of the attributes associated with the emergent professional persona of the surgeon. The network trainee is lured by concepts of an ISCP grounded in a service oriented, work place based setting, but is then easily deflected from the very social milieu that they believe truly supports their learning,by administrative and bureaucratic functionalism inherent in the ISCP design . This is the nature of the gap between the performance of ISCP and user perceptions of surgical training, the gap between performance and learning. Paradoxically, ISCP is a wonderful conceptual metaphor for highlighting the way that surgery is more than operating and that surgical practice takes place within a system that has ways of doing and ways of being a surgeon. It is unfortunate that ways of being a trainee with ISCP are not seen in relation to the ways of being a consultant surgeon and experiencing surgery. Perhaps this is the cost of stressing the knowledge, skills and behaviours of surgery and a value system based on outcomes and competencies at the expense of training metaphors derived from surgical experience and the actions of surgeons when they train.

ISCP Learning Performance Impact

3 Learning
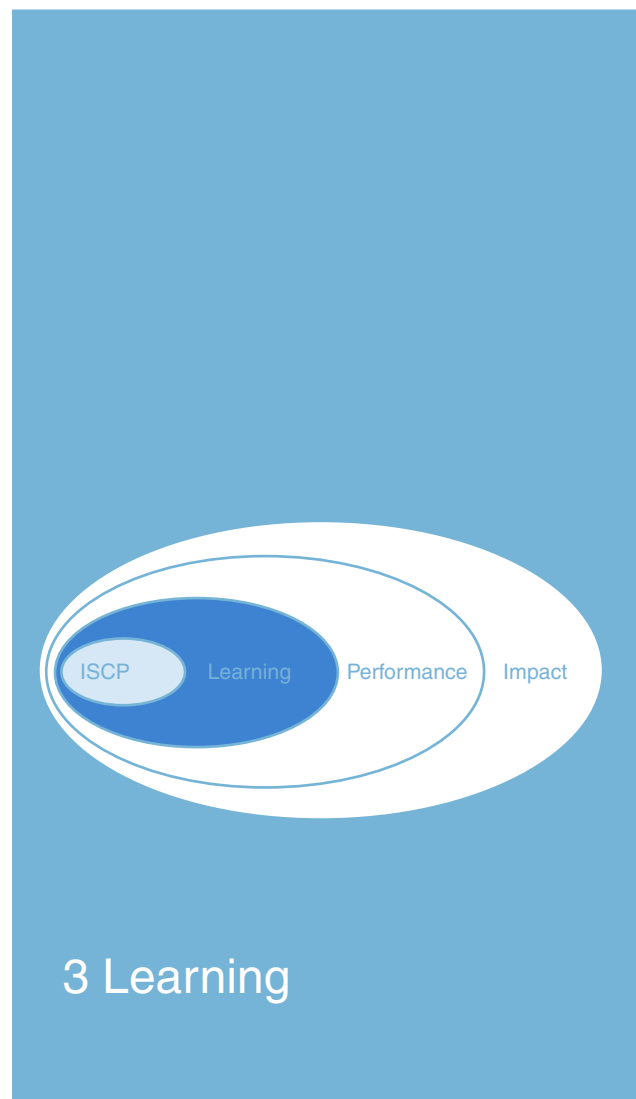
Institutional and individual

changes mediated by ISCP

3.1 In previous sections of this report we have alluded to the pressures of accountability and assessment on the design and delivery of surgical training. In this complex milieu of political, educational and social variables, ISCP as an e-portfolio for surgery reflected training curriculum. Since its introduction in 1997, ISCP has become more comprehensive and functional, but it is said at the cost of growing complexity, and more centralisation. ISCP does seem to constantly feed from its own steady state as the path to development. The efficiency of closed loop, centralism has however to be balanced by the potential for system isolation and a sense of inadequacy felt by trainees and the extended faculty of supervisors and programme directors, as they see their process and analogue training experiences 'ignored by the system'. The presence or absence of a sense of shared ownership is a real issue in the future development of ISCP. Equally the individual mandate of JCST to make ISCP part of the training culture (albeit a response to Tooke and MMC) did little for shared ownership and created the concept of ISCP as a compulsory purchase of a product by individual trainees.

3.2 The mechanism of a shared e-portfolio infrastructure or lack of it can be linked to the way that ISCP came into being. The concept of e-portfolio was latent in the dominant College vision of wanting to do something to enhance surgical training and make the training experience better for all concerned. From this vision, to the reality of ISCP, collective action gave way to curricular confinement and technological implementation …the Design took over the Dream, and the design never looked back ….literally.

> From this vision, to the reality of ICP collective action gave way to curricular confinement and technological implementation …the Design took over from the Dream, and the design never looked back …. literally.

3.3 This evaluation has asked many people what they think ISCP is and what it appears to be to them. Those who engage with its resources find ways of using it to support training and make it personally meaningful and organisationally efficient within the parameters of their own local, immediate and personal training processes. For other users it is strictly a tool that captures and records data and acts as a curriculum management system. Whatever the use of ISCP and however it is interpreted, it has to be more than a course infrastructure if it has aspiration to offer learning support for its users. In the vacuum of not knowing how ISCP might support and make the day to day aspects of training better, the notion of better and more powerful tools takes over. More features, more functionality to meet espoused user needs, more integration and comparability with other portfolio and logbook systems. With ISCP the tool has become one of those multi-tool pocket knives that seem to have gone beyond simple pocket knife technology to provide users with a veritable toolbox of optional resources …some multi-tools are so big that they are no longer pocket size and actually spend most of their time in a toolbox…where at least one is once again prompted to choose from a wider range of tools based on the job at hand!

3.4 At some point in this evaluation process you have got to ask yourself who is ISCP for? Is it for the Colleges or the individual trainer and trainee ?

The Royal Colleges are a professional network at the centre of medical and UK society. They are membership organisations that act in support of their members and society at large. Membership of the RCS was built on face to face interactions and the enculturation of junior members by senior members.

Given the influences on training highlighted above it is not difficult to see the extension of collegiate enculturation and support through networking systems such as ISCP. Making the colleges more accessible, transparent in their support for training, providing common resources, all seem highly compatible with the ethos of the Colleges and the direction of travel in response to the political and medico-social entailments of risk based regulation impacting on surgical training. However, the extension of membership modalities through new technology, although highly possible and plausible, can have unforeseen effects. Specifically, the way that e-portfolio and web based resources create a tendency toward 'networked individualism' (Castells 2000) where the trainee or trainer reshapes their relationship with the distant provider and their local training community. Notions of community and collaboration may become altered by the autonomy and hegemony of external resources and requirements. The design of e-portfolios in particular need to be sensitive to the balance between support for the person in the work place and supporting the networked individual in the wider training community. Metaphorically speaking, e-portfolio has to be both a concept in action that is derived from surgical experiences as well as a concept of training dependent on membership of a wider surgical community. In this regard ISCP is a very powerful design that aspires to a range of convenience that optimises both praxis and training theory. The risk of this strategy is that organisation (system) overpowers community, training spaces (curriculum) lack a sense of place and tasks (competencies) define the extent of surgical training events.

> Notions of community and collaboration may become altered by the autonomy and hegemony of external resources and requirements.

3.5   Asking the question …What is ISCP? Some might be tempted to say that it is a technologically mediated training support and programme management system operating on the socio-cultural foundations of surgical training and practice!   Other might say that it is a training tool no more no less.   The distinction underlying these descriptions of ISCP is the difference between those who want to pick up and use ISCP when it seems appropriate and helpful, and those who see it as a technology that pervades and modifies every aspect of their training even when it is not being used. The level of persistence and modification is often associated with the term infrastructure …a system that is invisible to users but always there when you need it.

3.6 Star and Ruhleder (1994) consider eight dimension of infrastructure. They are: Embeddedness, Transparency, Reach and scope, Learned through membership, Linked to conventions of practice, Built around standards, Built on existing technologies, and Visible on breakdown. ISCP has not yet achieved the status of an infrastructure. Its embeddedness is incomplete, it is not transparent for many of its users and it does not entirely assimilate local practices in their everyday form. Bateson's (2000) ideas on communicative systems is very helpful when considering ISCP as a training infrastructure. In the formation of an infrastructure Bateson identifies three level. Level one being the acquisition of technical expertise, how to log on and navigate ISCP, record assessments etc. Level two developments are about using the system effectively. Developing the craft knowledge of ISCP in response to personal and professional needs. Level three issues in creating an infrastructure relate to the kinds of learning we want to put into the hands of the system. The values of educational practice that we want to associate with ISCP processes and procedures.. In level three of this communicative hierarchy there lies the distinction between the values of the ISCP designers and the educational values of trainers and trainers on the ground. ISCP system developers have designed a 'greedy' pedagogy that takes training events and translates them very effectively into what is valued by ISCP: not necessarily always the same as what trainers and trainees might value and what they want to give over to a training infrastructure. The 'Faustian' pact here is that if as a surgeon you give over control of the design of your training infrastructures to developers, who do not have to implement the infrastructure, as the price of demystifying and quantifying training, you have pay with a system that can only develop (become an infrastructure for training) if there is active and interactive relationship between the values of the trainer/trainee and those of the ISCP. As infrastructural efficiencies come to dominate our ideas about ISCP development, its enhanced functionality, its comprehensiveness and interactivity with other systems there also needs to be some consideration of how comfortable and to what degree trainers and trainees are happy to give over their training and what they value about training to infrastructural systems. The quality of the emergent ISCP system being measured not just by what we can assimilate or incorporate but what we choose to leave out and how we close the gap between what organisational culture and the nonsurgical world want to see in training infrastructures and what trainers and trainees on the ground can use, adapt and modify to make training work on the ground. In this respect, have the affordances of ISCP as an open and responsive system been explored, or has it from launch always seemed to have all the qualities of a closed system?

3.7 ISCP as an infrastructure was and is clearly influenced by the experience of all technological innovations…namely, surgeons and anyone else can be resilient to technological impact. Resilient in the sense that changes in practice ushered in by the technology are moderated and diffused by practitioners who carry on largely unaffected by the innovation. ..so called strategic compliance.   This is a simple fact of life for curriculum developers or learning technologist and their bottom line is that trainers and trainees ultimately have to implement the technology. Goodyear has characterised this transcription/translation process by considering the difference between three dimensions of learning design technologies. One dimension is the difference between task and activity. In practical terms this is the difference between a set of topics, WPBAs or learning tasks set by trainers on ISCP and what trainees actually do in response to the task. Student activities will by their very nature be different from tasks not least because some tasks will be broken down by the trainer and the assessment instruments and be reconstructed by the trainee in terms of their own understanding of what is being asked of them.   The only direct relationship between ISCP tasks and student activity is when they perform simple operations in a robotic and almost automated way. The tyranny of assessment within ISCP is the routinisation of practice…and training is so much more than this.

3.8 The second dimension is the difference between organisation and community. The latter refers to classic apprenticeship approaches to training developed by communities of practice to reflect the management of those relationships. ISCP design could be viewed, if one takes a remedial viewpoint, as a way of enhancing the weak links between trainers and trainees that historically left them largely unsupervised and unloved!   ISCP design could also be interpreted as a method of strengthening the ties between a community of practitioners and its trainees through a classic notion of networking people together through a shared enterprise using a common repertoire of action that invites mutual engagement in a defined curricular programme. But does this approach make training more effective… is networking enough and is sufficient? The goal of communities of practice as opposed to networked practitioners is the desire to achieve shared values and practices. However, the essence of shared practice is defined by personal, local and national factors that help construct what the community thinks is the best way to be a surgeon and deliver a surgical service.

The placement of ISCP systems between national curricula and personal training practices moves the locus of programme ownership to the middle ground. This location improves accountability and transparency thus potentially enhancing the trainee and trainer relationship through more effective networking and brokerage of training opportunities. However, the nature of shared practice is also redefined by this intervention arising not within and under the control of communities of trainers and trainees but at the boundaries of concordance and conformity with national standards of training. This can be a highly desirable place to be in terms of national governance and quality assurance of training systems …if you are a educational or training institution. But if you are a membership organisation dependent on communities of practitioners to implement training, what emerges from this evaluation is the image of ISCP as a networking system operating within communities of practice that uses a training model that can simultaneously strengthen and weaken the human systems that we rely on to deliver training. What ISCP can do in this regard is to trigger individual and organisational learning about the nature of training and what factors control the training experience when it is beyond the direct influence and the shared practice of the unit or department. The key issue is to support trainers and trainees in finding a balance and a set of conditions where both ISCP networked training and communities of practice contribute to training in different ways at different times with different trainees. If a senior group of surgical trainees in a specialist unit are organising theatre rotas on the basis of sharing training opportunities with a community of practitioners where everything is judged to be training and where everyone is seen as a trainer and a trainee, then the role of ISCP is not to reinvent, replace record or reconstitute this experience..the actions, training audit activity and the experiences gained through this process are sufficient. In contrast, if a junior trainee in a small regional hospital is struggling to gain the confidence of the surgical team in the short period of time he is there. Here ISCP systems and approaches have the potential to construct training experiences that invite stronger and more structured interactions between trainer and trainee. This may fall short of the trainees and trainers aspirations for the attachment but ISCP   may create opportunities to reintegrate with the team and enhance access to different training opportunities. A 'quick' but rigorous MSF might be all that it takes to take establish a new plan for the rest of the attachment captured in an updated ISCP learning agreement. In this instance ISCP is not a sanction, nor is it an alternative to apprenticeship style experiences within surgical teams, nor a remedial path way to competency…it is in this mode ISCP becomes the training experience.

3.9 The final dimension of infrastructure is Space and Place. There is a distinction between structural space where ISCP operates as a formal instrument of training and its place in training. The transition form space to place takes ISCP to places where it becomes personal and more connected to other elements of the trainee's experiences. In real terms we are talking about the permeability of ISCP to local and personal 'placemaking' and its potential to allow users to constitute their own ways of organising and making sense of the space created by ISCP. There is little evidence of ISCP 'places' being created in terms of a proliferation and a set of permissions to put personal training approaches into action in the ISCP space. This might take the form of quantitatively auditing training events, assessment practices and competency attainment at programme or individual trainee level, but perhaps more interestingly using ISCP as a way of conducting 'research' into your own training experience. During this evaluation a group of trainees emerged who seemed to be able to manage their training with ISCP in a collaborative mode that was quite distinctive. In these instances the trainee was very fluent with ISCP systems (but not necessarily an enthusiast) and a strong commitment and awareness of the attachment/departmental/Deanery training process. What was distinctive about these trainees was their positive relationships with trainers and colleagues and their ability to mange their own training in reflective, pragmatic and strategic ways using ISCP and any other instrument to negotiate, research and above all construct a training programme. In one example this took the form of informal and episodic reviews of training experiences by 'browsing' in ISCP and the formulation through reflection, of an equally informal set of 'soft' training goals that were a composite of what might be achieved in the current attachment and what was ideal from both an ISCP and a personal viewpoint.

> ISCP exists in cyberspace but its place is in every training facility in the UK

3.10   ISCP has, at an infrastructural level and within communities of practitioners, disturbed the training equilibrium of surgeons and surgical trainees. Before ISCP, community and infrastructure were synonymous but ISCP has created in virtual terms a new community of practice within surgery, the community of ISCP aligned teaching and training practitioners. The separation of surgeon from trainer from trainee is an uncomfortable one particularly when it is driven by technology and externally imposed infrastructure.

It has forced people (through mutual engagement and common enterprise in the form of ISCP development and implementation) to make their training values explicit. When rejecting ISCP for what ever reason at what ever level of concordance, practitioners can feel that they are rejecting their membership of the wider community of surgeons. Alternatively, by accepting ISCP, they become tacitly part of a community of trainers that they do not relate to as surgeons. Similarly trainees do not necessarily want to change the relationship with their trainer through ISCP preferring perhaps optimal distance, benign dictatorship,or mentorship. Equally, trainers can feel that they do not want to share with trainees the benefits of their expertise at the cost of getting involved in the practical and emotional entailments of being an 'ISCP trained trainer'.

3.11   What is the relationship between ISCP and its users? Marshall McLuhan is credited with the phrase 'the message is in the medium'. Extending this to ISCP one might say that using ISCP modifies the trainer or trainees consciousness of what it is to be a surgeon. If you perceive ISCP as training technology it has at its roots a type of technological determinism that reflects the belief that technological intervention and innovation would be capable of changing the way surgeons train…. technology as a force for social and professional change. This view is now moderated by a sense of technology as a catalyst for change acting on a social substrate that is capable of adapting in both predictable and unpredictable ways. This social constructivism notion means that societies sample technologies, explore their affordances or range of convenience and then assimilate these into practice. This social shaping of technology applies to ISCP as with any other e-portfolio system. However it is the degree to which ISCP allows choice that is an interesting and specific dimension of this technology. ISCP users have little choice in how they use the system, they may put more emphasis on the reflective side than the assessment side but ultimately the degrees of freedom open to them are limited. This is not just about the feeling of control, ownership and making choices, but finding a place with in the programme where you can find a space for what you value. Indeed there is little room in ISCP for you to make this your 'home' page or your wall, as you might with other social media networks.!! ISCP doesn't have the interpretive freedoms that might help its adaptive potential and social shaping.

This is in itself not a bad thing in the short term as it has created a form of technological and social dissonance that is essential if social shaping is to be initiated. The problem arises when the technology, specifically the e- portfolio systems become impermeable, unresponsive and inflexible.   The very complexity of ISCP is a barrier to this process and when critics comment on this aspect of ISCP, operational complexity, there is often an implicit consideration of its inflexibility.   Central to the development of ISCP is the need to open it up to technological, pedagogic and educational controversy through it users so that it can be shaped by its community of practitioners. This is not simply responding to feedback gathered by the Helpdesk, or feedback pages or tinkering at the edges of usability and functionality…it is more about creating a forum of users that actively negotiate the shape ISCP in the future. The process of receiving feedback from AES and TPD source filtered by SAC's is not fast enough or efficient enough to generate this level of activity. As long as the desire for central control of ISCP exists and its components remain interlocked and interdependent then it is difficult to see how it will ever become permeable to the type adaption pressure that allows users to shape its systems . This is the only way that ISCP can be transformed in the way that every other innovatory and bold technological innovation has over the years.   The potential of ISCP is probably being under valued and under realised. ISCP is still in the relatively early stages of development in this regard, but if it does not become more open to its users it will not be the change agent that it promised to be. The difficult thing to do now is to step back from the control of ISCP, to let go of the ownership whilst continuing to support its use, to make it a no cost, benefit of membership rather than a compulsory purchase, to conceive of it as part of a process in surgical education and training rather than a pedagogical product. ISCP has to be allowed to support personal learning rather than training. It has to be allowed to modify values and beliefs about training and change perceptions of what is to become a trainer and trainee.

ISCP Learning Performance Impact

4 Learning from ISCP
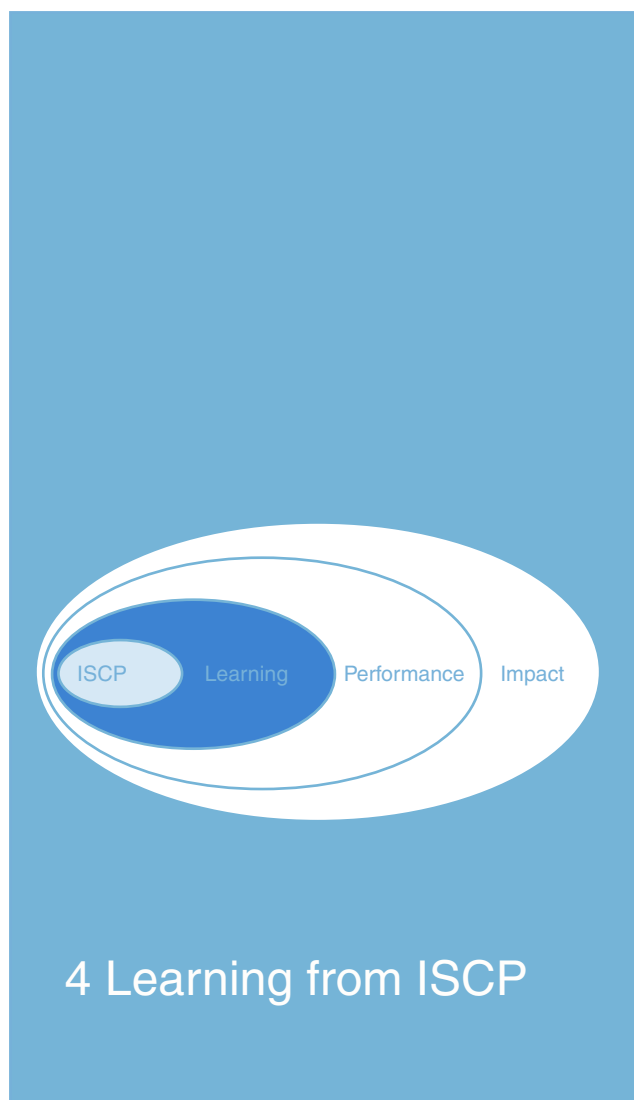
The rhythm of life is a powerful beat

Puts a tingle in your fingers

Puts a tingle in your feet

Sammy Davis

4.1 If you have tried to sing the lyric above to yourself, you will realise that timing is everything… and so it is for the ISCP. The vertical timing component of ISCP is the training chronology from CT1 to ST8 and the horizontal element, the daily rhythms of clinics and lists that make up the surgical training experience.

For most trainees ISCP use starts after they have completed the Foundation e-portfolio. Surgical trainees' downstream experience of the FY e-portfolio is not insignificant in forming the behaviours and practices of the new surgical trainee. They are inducted into the ways of assessment, WPBAs, supervisor meetings and the recording of Personal Development Plans. This is no doubt a fruitful time to have a bit of structure and an explicit pedagogy for training   In what Neighbour (1995) refers to as the 'hierarchy of educational imperatives' the FY curriculum and its e-portfolio operate at the Survival, Safety and Confidence levels of the hierarchy (Maslow) . At this level of training it seems entirely appropriate that trainees learn to do no harm, know how and where to get help when they need it and begin to develop a set of personal and professional values that allows them to use their craft skills in each new community of practitioners that they attach themselves to on rotation. The legacy of the FY portfolio is that this noviciate experience of portfolio can linger into the CT years and beyond. There is a sort of arrested development that interprets ISCP as more of the same. ISCP is more of the same for many young doctors entering surgery, when it should offer the option for professional and self development in the widest sense. ISCP structures and its hegemony of practice rules can draw the trainee back to the lower levels of Maslow's hierarchy with all of its familiar bulwarks of WPBA sign offs and LA's which seem to inhibit rather than recognises individual professional, personal needs and motivations . It is at this point, and now progressively through specialist training, one wonders if the portfolio should not become much more of a personal and heterogeneous record of evidence of achievements beyond the confines of ISCP reflecting more of the world of surgical professionalism in a community of practitioners who work with trainees to devise and deliver ongoing training.   Of course some trainees will travel this path to training autonomy at different rates and no doubt, as many ARCP sessions are testament to, they may need to have the rigour of the ISCP visited upon them. This could be seen as a sanction perhaps but none the less it is a viable option for the trainer who may feel a period of structure and safety is needed before the next phase of training. However, a much stronger sense of training trajectory (Neighbour) towards the higher levels of practice in the realms of self esteem autonomy and recognition (Maslow) need to be encouraged. The old apprenticeship systems was not just about sitting by Nellie situations but taking the journeyman surgeon from a reasonably competent craftsman to a confident, comfortable self motivated individual. The EWTD may contribute to young surgeons not feeling ready for consultancy but one has to ask whether training modalities fixated by quality assurance and competency leave enough room for the attributes of self esteem, confidence, responsibility and autonomy to be equally well monitored and managed.

4.2   When do you use ISCP?

When Professors of Surgery knew everything and senior consultants knew what had to be known, trainees learnt through apprenticeship systems that were less than comprehensive and highly idiosyncratic.

When you want to know what to teach and how to do it in a reasonably systematic way it is very helpful to consult a syllabus and plan training with a curriculum in mind. A surgical curriculum is a very reassuring thing to create for teachers and a pretty daunting but equally useful thing for trainees to be aware of …at least some of the time…at least before exams or ARCP's.

ISCP is a powerful curricular resource that has and does abolish the uncertainty of the daily situation facing trainees and trainers when they ask themselves' what should I be learning/training on today' or 'is this a case that I can train on'?

> Of course some trainees will travel this path to training autonomy at different rates and no doubt, as many ARCP sessions are testament to, they may need to have the rigour of the ISCP visited upon them

If ISCP is a very sophisticated curricular 'ready reckoner' that gives access to curricular content and progression, this is a good thing, but the cost of using it is that it belongs to someone else outside your own teaching /learning circle. As a curriculum that is delivered to you as a product of national SAC's and the wise men and women of those groups, the relationship between trainer and trainee changes . ISCP delivered to trainer and trainee directly by the web, as a product, alters the nature of the learning transaction between trainer and trainee, changing it from mentorship to a technical alliance whose currency can be devalued to competency measurement. When you use ISCP, you restrict the options for apprenticeship automatically. It becomes, in the negotiations between trainer and trainee the arbiter of whether the trainee can perform a procedure or is ready for an advanced training experience. This is a unique form of negotiation outwith the mentor/mentee spectrum of interactions based on the mutual insights of trainee and trainer and the feelings of readiness derived from shared experiences in a non judgemental setting.   By conforming to MMC (Modernising Medical Careers) guidelines about competency based curricula, ISCP has produced a technical surgical training template enhanced by its own technological systems. There may be an argument that this type of reform was required in the light of high profile deficits in training accountability but when ISCP is used all of the time to define when training is occurring and when it is valued and when it should happen ….trainee and trainer are at risk of loosing sight of when practising the art of surgery generated by discussion disagreement and dialogue, is much more important.

The benchmark of the ISCP curriculum invites trainers and trainees to conform to a template of teaching and learning outside the traditions of their practise. It is entirely healthy that they resist its actions not as luddites or iconoclast but as a group who wish to construct, create and conduct their practises within the referent of their personal actions and guided by the surgical wisdom of their immediate colleagues and peers.   ISCP is not cut in stone and it is capable of affording its users a number of degrees of freedom in its use. Where there are core surgical skills that need to be assessed (the rights and wrongs of practice) regularly ISCP in technical mode with trainer as assessor is well formulated to carry out this task reasonably systematically. When a more apprenticeship like model of training is required to illuminate mutual understanding and explore opportunities to learn independently. This type of learning cannot be pre-specified or easily assessed and is indeed highly vulnerable to over specification ….the very characteristics of ISCP in competency testing mode.

4.3   ISCP Rhythms

The most effective training with ISCP is to know when to suppress its curricular and assessment agenda. This is not the resentful act of someone wrestling for control over theirown training agenda but a strategic act that is directed at maintaining a rhythm between the internal and external influences of training. Roger Neighbour has coined the phrase the Inner Apprentice, the person inside us all who monitors performance and knowledge then plans what to do next in terms of learning and training.   The Inner Apprentice, manages their training according to their Inner Curriculum plan and the external world of practice ...the art of training, is when to use influences from outside and when you just need to allow person-ally relevant training goals to emerge, when to foster self selection of training opportunities, or call a time out on the competency assessment circus and elicit help with training issues that matter to the individual. Figure 1 below is a descriptive model based on a cusp catastrophe surface that reflects the comments and reflection of trainees and trainers elicited during the ISCP evaluation . The model illuminates the complexity of the interaction between the external ISCP curriculum and the Inner Curriculum constructed by the trainee and suggests how timing influences training behaviours and experiences.

Figure 1
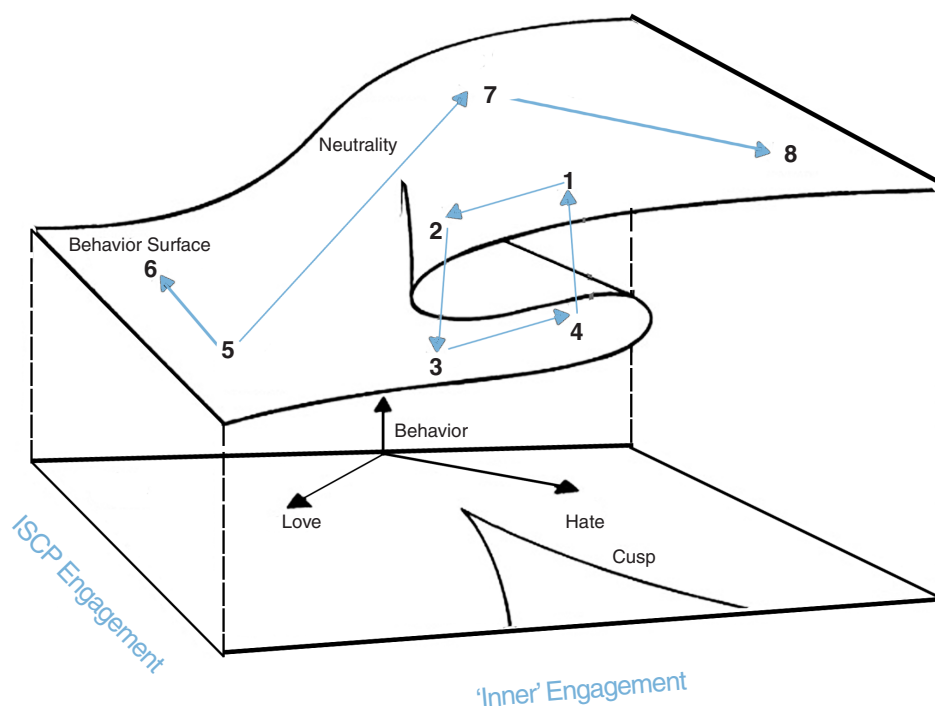
4.4   The ARCP 'loop' 1234

If we consider Position 4 on the behaviour surface as a starting point, this place is occupied by many trainees who are enjoying their training and have engaged with the process at a personal and professional level. Their engagement with ISCP is moderate to low, often described as patchy or selective. As the trainee's ARCP approaches, there is a sudden and rapid engagement with ISCP, literally a jump from position 4 to 1. On the catastrophe / behavioural surface of the model (folded cusp) this is a rapid and significant change in behaviour that requires a powerful set of conditions to initiate, more than say the pleadings of a supervisor or the common sense advice of colleagues which may bring about a less pronounced and more gradual engagement with ISCP (path 5 to7 to 8)

Following the ARCP there is often a falling away of Inner engagement as ISCP issues linger. Then an equally rapid return to the trainee's own curricular agenda from Position 2 to 3 to 4. An interesting aspect of this modelling process is that it reflects the resentment often reported by trainees that ISCP deflects or displaces their own focus on what they see as their 'Internal' training trajectory. Post ARCP the model also suggests that there is a phase, Position 3 to 4 where the trainee has to re-establish her Inner training focus.

The behavioural hysteresis at the cusp is rapid and relatively unstable and is typical of the off /on relationship that trainees have with ISCP. It is interesting to speculate about interventions by trainers at or around the time of ARCP or other significant events that engage the trainee with ISCP. Although many ARCP panels make remedial suggestion on the day, it is possible that trainers should intervene more assertively at points 2 and 4   i.e. before and after ARCP to reinforce the opportunity of ISCP engagement and build on the advice of the ARCP panel. It is interesting that the dialogues typical of surgical ARCP meetings often emulate the overlapping cusp conditions of the trainees inner agenda ('what do you think you are going with you training, what are you concerned about in this attachment ' and ' with 3 months to go you have only completed 10 of your 134 topics…why is this?') and the ISCP curriculum.

4.5   Induction pathways Position 5

Another significant dimension of the twin states of ISCP and Inner engagement are the

> For these trainees it would be entirely appropriate for ISCP driven activities to be used as part of a light touch training strategy.

conditions around trainee induction. At Point 5 we might consider the noviciate trainee who already has some experience of e-portfolios but has limited exposure to the surgical training world. With effective Induction two paths are suggested by the model. Position 5 to 6 is typical of a technical ISCP induction where the portfolio systems are demonstrated and the trainee progressively develops fluency with the management, recording, assessment and communication functions.   Another pathway, position 5 to 7, moves induction behaviours in a slightly different trajectory. Here a technical assimilation of ISCP systems is accompanied by an internal awareness of the relationship between the two. Typically trainees on this path report that they like to record and reflect on their experiences and that ISCP is a convenient and structured way to keep track of their progress. These trainees often have successful interactions with their trainers and have few problems organising assessments. The model suggests that this trajectory takes the trainee to a relatively stable place where both personal and externally driven training agendas coexist productively.   Indeed the Path 7 to 8 may even suggest that trainees can reduce their commitment to ISCP whilst still maintaining a stable equilibrium between both ISCP and Inner agendas. For these trainees it would be entirely appropriate for ISCP driven activities to be used as part of a light touch training strategy.

Finally, it is noteworthy that trainees on these pathways often report a strong or complementary level of ISCP engagement by their trainers . ISCP induction carried out by the regional team has been much appreciated by training centres and is highly supportive of trainees and trainers. However, it is interesting to speculate that induction by trainers followed by Learning Agreement negotiations and goal setting, that include negotiations that take account of personal training needs and preferences might achieve a more meaningful and more stable level of 'inner' engagement. That is, avoidance of the pathway 6 to 5 where initial enthusiasm for and engagement with ISCP systems decays slowly and leads to a reversion to DIY surgical training based on strategic pragmatism and opportunism.

4.6   ISCP Induction pathology

The final characterisation of ISCP engagement and induction lies along the Pathway 5 to 3 to 4.
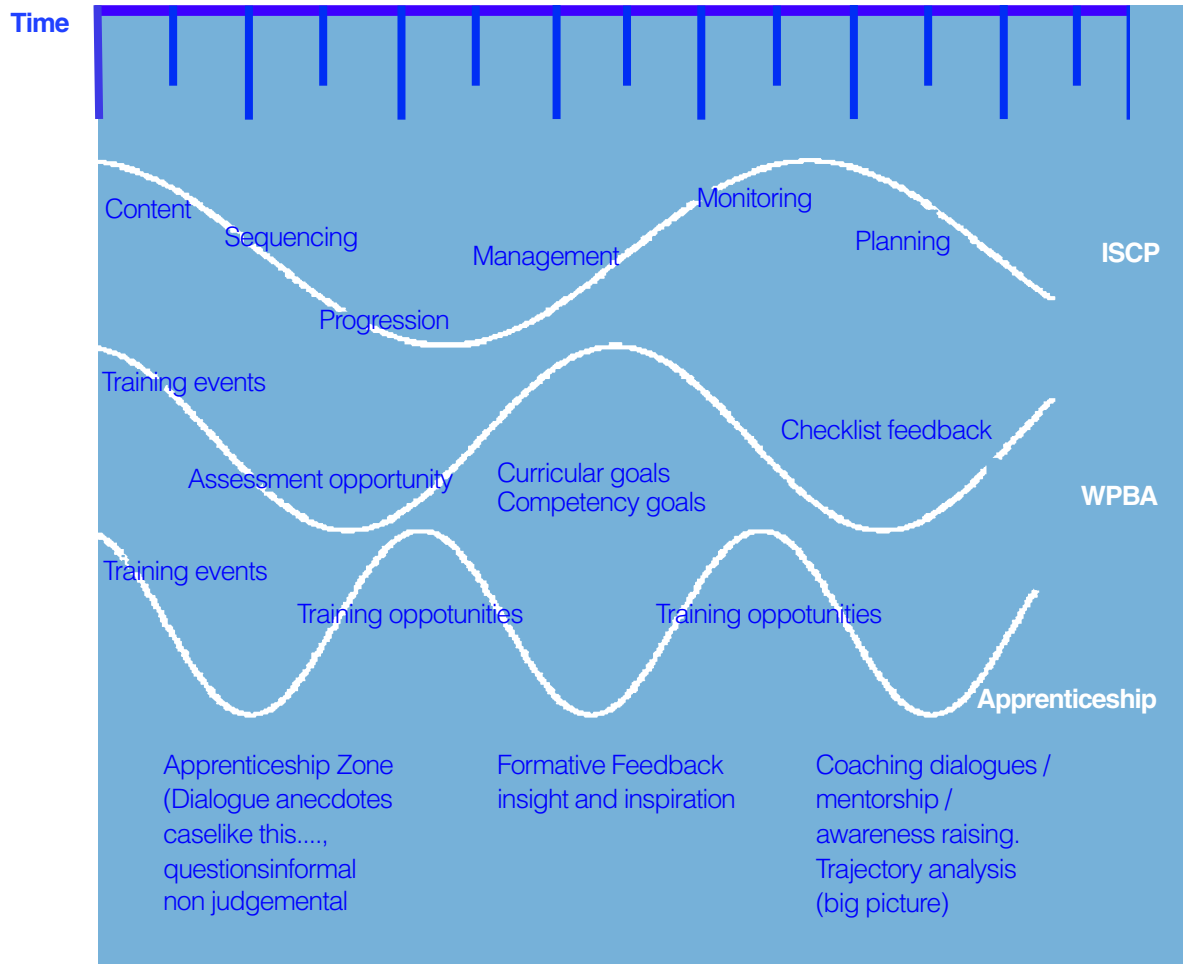
This trajectory is reported by trainee and trainers whose ISCP induction has been incomplete or ineffective either at a technical or conceptual level or both. Typically, these individual try to ignore ISCP as much as possible in favour of their own training approaches which are grounded in the specialty curriculum but heavily customised by local practices and personal training beliefs. There is a degree of collusion along this pathway that allows the trainee the illusion of freedom and reinforces the authority and mastery of the trainer(s) . The failure to launch ISCP at Position 5 leads to the WPBA loop. The trainee is dedicated to their own training programme, becomes entrenched in an idiosyncratic training trajectory and may never become fluent in or value the support of ISCP systems. It would be wrong to characterise these individuals as failing trainees they are often committed learners but marching to the beat of another drum.

Figure 1
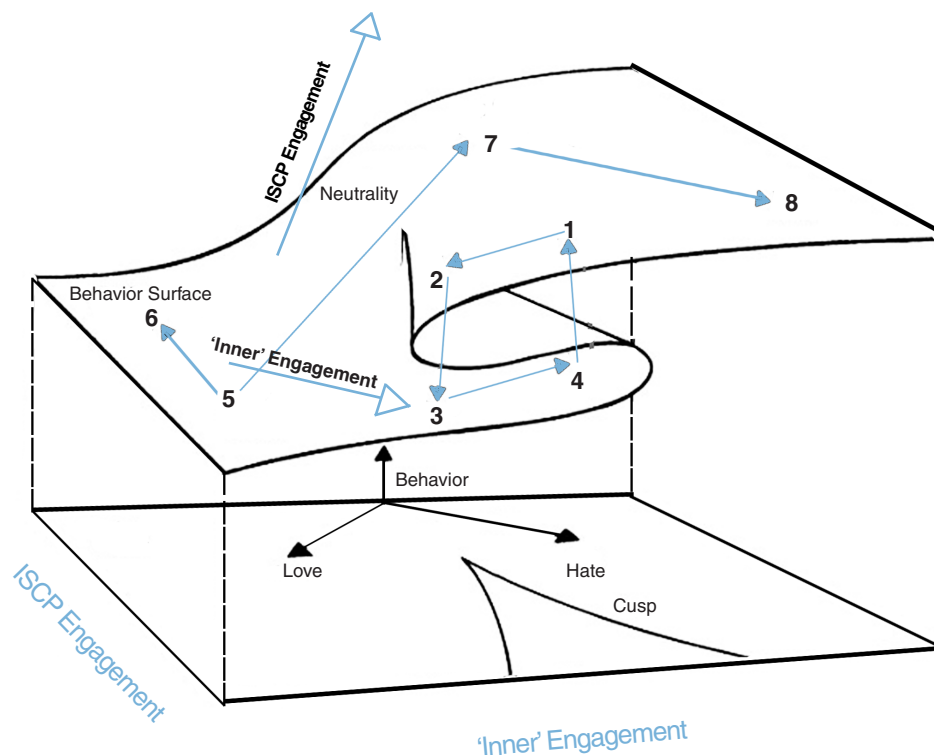
The art of using ISCP resides in managing the tempo of training and understanding the ebb and flow of the ISCP world and the Inner training agenda. Axioms such as 'what matters, gets noticed; what gets noticed matters' (Neighbour) do not suggest a laissez faire approach to training but an awareness and sensitivity by trainers and trainees to timing and rhythm with in the training process. The rhythm of ISCP is strategic, involves cycles of action, practising, feedback, reflection and planning can be extended over days week and months thanks to the digital permanence of e-portfolios. Feedback can be instant or delayed, condensed into a few words or reduced to a set of rating points.   This contrasts with the immediacy and impermanent nature of traditional apprenticeship dialogues and interventions between trainer and trainee. These are often at a micro level of personal insight, professional craft directed very specifically at making a difference in the here and now with that specific trainee in the right place at the right time. …and this is often enough to make a difference without the paraphernalia of recording the event.

Time

Content

Sequencing

Management

Monitoring

Planning

ISCP

Progression

Training events

Assessment opportunity

Curricular goals
Competency goals

Checklist feedback

WPBA

Training events

Training oppotunities

Training oppotunities

Apprenticeship

Apprenticeship Zone
(Dialogue anecdotes
caselike this....,
questionsinformal
non judgemental

Formative Feedback
insight and inspiration

Coaching dialogues /
mentorship /
awareness raising.
Trajectory analysis
(big picture)

4.7   The diagram above tries to give some indication of the synergy and rhythmic nature of the surgical training environment. The frequency and amplitude of the ISCP e-portfolio is determined by its rationalisation of the training process and its competency based model of education. Apprenticeship style training has a higher frequency and intensity driven by a free running personal agenda of what the trainee needs to know, needs to be aware of and want to learn/practise in a particular setting at a particular time. This training agenda is neither planned nor preconditioned but responsive to the moment by moment assessments of the trainer and the quality of the dialogues and professional relationships developed between the apprentice and his mentor. WPBA is identified as a sub set of ISCP activity to highlight another rhythm of training that is somewhere between the strategic curriculum based teaching and mentorship.

WPBA is where trainer and apprentice do their duty by assessment, subordinate personal agendas to the curricular hegemony of competencies, deconstruct their skills in set piece events in order to receive formal and summative feedback (ARCP) and evidence of the quality, systemisation, accountability and fairness of training.

WPBA, is the 'no mans land' of training where the trainee takes risks with their knowledge, skill and self esteem and tries to match the inner and outer ISCP worlds of their training. WPBA is where trainer and apprentice do their duty by assessment, subordinate personal agendas to the curricular hegemony of competencies, deconstruct their skills in set piece events in order to receive formal and summative feedback (ARCP) and evidence of the quality, systemisation, accountability and fairness of training. This in contrast to the constant and continuous forms of assessment that are part of apprenticeship/mentor dialogues, demonstrations and decision making that guide the individuals in action. Neighbour notes ' *Assessment is a frame of mind that is untiringly interested in making conscious whatever the Trainee is just on the threshold of learning. Assessment is a frame of mind that values relevance and good timing in teaching. Assessment is the frame of mind that keeps three questions hovering in the teacher's thoughts – 'How can I help this person become fully aware of what matters most right now? What does matter most right now' And how can I tell?'*

4.8   In the course of this evaluation it has been clear that synchronicity between the ISCP curricular blueprint, its assessment instruments and apprenticeship methods can be achieved . Typically, the trainer is familiar with the range of convenience of the different WPBA's,(has attended a TAiP course probably) selects WPBAs fit for the purpose and in-corporates them into training events in a timely way as tools that enhance their awareness of training needs and enable fruitful dialogues with the trainee about future opportunities and training plans. Feedback is often immediate, diagnostic and relatively non judgemental. This is then followed up in the ISCP system with a signing off of the assessment often with delayed and a cryptic acknowledgement of the training event in the form of assessment ratings and a feedback summary. Some trainers and trainees use this assessment framework with considerable flexibility and finesse. The bottom line of their skills is that they time the assessment process well, use the rigour of ISCP methodologies to reinforce trainee engagement and formalise their practice but never loose sight of the primacy of using assessment to continuously stimulate dialogue, dissonance, and decision making with the trainee.

Equally, there are many assessment pathologies and misconceptions within the ISCP framework.

This evaluation has illuminated a number of situations where assessment and assessment instrument get out phase with training. There are many instances of WPBAs being completed and signed off just before ARCP meetings, WPBA's banked over a period of weeks and months and then sent for sign off in batches as no more than an administrative requirement. This is not in itself a problem if it is purely the tidying up of loose ends that reflect a productive assessment strategy deployed throughout the attachment. Sometimes this strategy is part of a post hoc attribution of training experiences to WPBA competencies carried out in the absence of the trainer or with some trainer input.   This blueprinting strategy seems to seriously erode the spirit of formative and continuous assessment and when this is done as the only interaction between trainer and trainee in assessment mode it is no more than paying lip service to the ISCP model and becomes the classic tick box activity.

4.9   A variant of this assessment pathology is the emphasis on the quantity of assessment . Various voices can be heard around this issue…One WPBA a week, 40 before ARCP ….80…

> Trainees resent formal assessments, they would wouldn't they, because assessments are threatening, distracting, potentially demotivating, trainees are lazy it is said, and have misconception about the amount of effort and competitiveness needed to make it as a surgeon.

and so on. The origins of this focus on numbers of assessments is clear . More assessments mean enhanced reliability, more sampling of skills, and more confidence in making judgements about the trainee's progress. Part of this quantitative paradigm is that more is always better and this relates well to quality control issues around training…more assessments means that more training is assured? However, this is all a matter of perception particularly if your assessment strategy is out of synch with the rhythms of training outlined above. Trainees resent formal assessments, they would wouldn't they, because assessments are threatening, distracting, potentially demotivating, trainees are lazy it is said, and have misconception about the amount of effort and competitiveness needed to make it as a surgeon.   A common feature of trainee behaviour is that they go through periods when they find it hard to produce the required number of assessments. This would suggest the need for a set of guidelines and rules to energise their assessment activity. However, this evaluation would suggest that if we want to impose assessment on trainees for QA, accountability and motivational purposes then we seriously affect the rhythm and the quality of formative assessment.

WPBA is all about perceptions, trainee x has not completed a 360/MSF, he has two or three CBD's signed off and has no PBA's in the last three months. … Bone idle, disorganised, low self esteem, possibly, but definitely an exemplar of where ISCP WPBA and apprenticeship modes of assessment are probably out of phase. Typically, this means that for this trainee the WPBA and ISCP assessment agenda can begin to dampen out the apprenticeship and formative modes of assessment. The dialogues between trainee and trainers dry up, negotiations about training opportunities become less flexible, assessment become summative and over judgemental, normalising and above all isolating. ISCP and WPBAs used in this climate are powerful instruments that become summative all to easily with a concomitant loss of the ability to illuminate what the trainee values and needs in a specific training setting. The skilled trainer uses the ISCP assessment framework to re-establish the mentorship relationship, rediscover the fine tuning diagnostic insights and subtle management of training opportunities that require an intensity and frequency that balances the formal assessment process. In this way the evidence of training is not the number of WPBAs successfully completed but the quality of the training response that helps the trainee re-establish coherence between ISCP curricular and assessment frameworks and their current awareness of what is impeding their progress and their desire to learn. Beating the trainee with assessment targets and curricular milestones may or may not force re-engagement, what it must certainly do is make it harder for trainee and trainer to establish the internally driven and interpersonal apprenticeship dialogues that flourish when the trainee knows that he/she is ultimately responsible for their own training. The evidence of this is not numerical, it is only captured in the qualitative narrative that guides the trainee towards excellence and is expressed in the values and beliefs shared with their trainer. Simply, it is the trainee taking responsibility for managing their own training and with this responsibility, internalising their experiences in a way that allows them to maintain a dialogue with their trainers.

4.10   Undoubtedly, some trainees collude with the system of formal assessments and curricular frameworks quite happily year in, year out, satisfying the requirements of ISCP. The *quid pro quo* in these cases can be an acceptance that training is best monitored and directed externally and the best arbiter of progress is the apparently objective and fair system of WPBAs linked to ARCP.

Some of these trainees value the optimal distance that this can create between the realities

> To make the Generic PBA an assessment issue is to miss the point about the need for more flexible and interpretative practice within ISCP.

of their day to day interactions with trainers and hospital staff, whilst others resent the way it interferes with their total immersion in the community of practitioners that they wish to identify with during their training attachment.   Most trainees seem to be able to affect a balance of approaches although the strategic trainee is ever mindful of the currency of progression at ARCP and the value of instruments of assessment that may capture little of their achievements in becoming social enculturated in a unit or becoming a valued member of the team able to perform unit tasks but highlight their fluency in handling disembodied 'core' competencies.   Of course the key issue here is not that WPBAs are wrong and testimonials and tutor reports are correct, both have a place in the trainer's assessment toolbox. The issue is the relationship between the two and the value we attribute to these forms of assessment. The 'generic PBA' issue is a case in point . Procedural Based Assessments have been part of the ISCP assessment toolbox since its launch. Used in an holistic way it provides the trainer and the trainee with the opportunity to concatenate a series of skills and competencies in a given set of index procedures. The PBAs are blueprinted to the curriculum and reflect the wisdom of senior consultant surgeons on best practice. They are preformed, a priori definitions of practice .   Relatively recently there has been a call from more grass roots freedom in developing and designing PBAs that are more locally relevant and linked more closely to the practices of individual units … so called Generic PBAs . These would retain the template of traditional PBA's but have a higher degree of concurrent and face validity with local training and assessment practice. The generic PBA could be resisted on the grounds of assessment and curricular drift reducing its validity in ISCP terms …this is but one issue. I think that the key point here is that Generic PBAs are a symptom of the need for more user flexibility and the desire for a set of instruments that reflect appren-ticeship modes of training. Assessment instruments that are more flexible, permeable and responsive to the needs of individual trainers and trainees.   To make the Generic PBA an assessment issue is to miss the point about the need for more flexible and interpretative practice within ISCP.

ISCP   Learning   Performance   Impact

5 Reaction
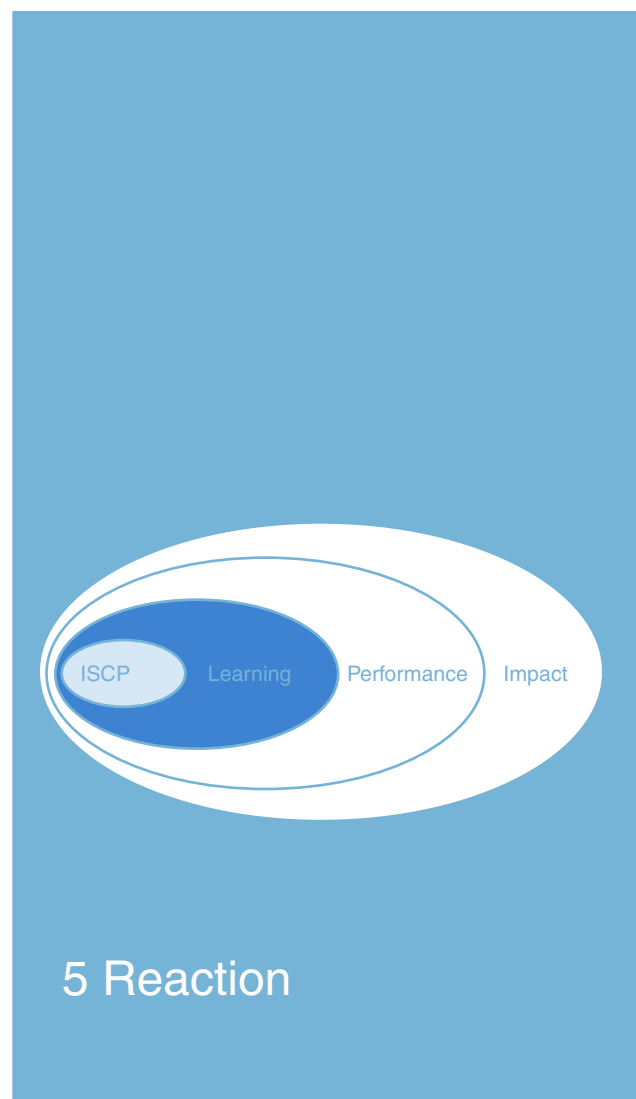
...how people react to ISCP

In answer to the question….. 'Where do you use ISCP?', you may reply to a trainee …'
every day and in every way……', reflecting the notion that ISCP is about continuous and
continuing professional development that makes the individual 'better in every way'.
However, the reality of ISCP practice is that its use is defined or demarcated by the dynamic
between the practises of a community of local surgical practitioners and the trainee. These
boundaries are constantly drawn and redrawn day in day out, week in week out during
training. They are constructed on the basis of explicit curricular goals,the training activity
formats of ISCP and implicit, informal ideas about experiential learning on the job, the
transparency of surgical craft skills and making decisions that reflect not only technical
ability but also insight into the 'ways of doing' defined by the surgical community in a
specific team or unit or department.

5.1   When trainees are trained using ISCP they are following the technical-rational tradition of modern surgery that involves specialism, standardisation and scientific problem solving. Indeed, as mentioned earlier in this report, through the impact of government and the GMC, they are following a technical -bureaucratic curriculum. This technical tradition of training has been around for a long time, its bureaucratic (PMETB/GMC) dimension less so. ISCP is in many ways at the summit of technical dimension less so . ISCP is in many ways at the summit of technical rational training being a highly deliverable, consumer focused, standardised system of training support. In the space between formal and informal training, ISCP competes aggressively for the attention of surgical practitioners. This is of course enhanced by its external authority and internal management systems.   If you belong to a technical rational profession, why not use the same means to train new members your specialism . To use ISCP or not use ISCP is not the issue in this context, to reject ISCP and return to some form of laissez faire apprenticeship scheme for surgery is not the issue either. What is important and has been illuminated by this evaluation is that ISCP has been allowed to displace informal training and deskill trainers in the art of surgical apprenticeship. ISCP has exacerbated the separation between surgery in practice and the practice of surgery. The surgical trainer as a source of knowledge remains but the skill and technique of the trainer and trainee,used to maintain a balance of informal coaching dialogues alongside the spirit of apprenticeship, has been tested by ISCP ….and failed. An irony of this situation being that courses for trainers have become even more technical-educational in response to the challenge of ISCP. These draw in trainers, who become   'trained trainers', or should that be entrained trainers, more and more strongly into the technical –educational model. The blanket training of trainers, in educational and assessment systems is essential for standardised training but the cost is that the informal, coaching and dialogic skills of practising surgeons are neglected or at best left to chance, and trainer charisma. TAip course have been very successful in supporting the surgical community, Deanery courses have met the external pressures of the Gold Guide and the GMC, but there is definitely not enough emphasis on supporting the integration of ISCP with the personal practice worlds of trainers and trainees. It is important that both trainers and trainees are helped to re-establish this balance. During this evaluation, a number of Silver Scalpel winners were asked what they felt made them good trainers.

> ISCP has exacerbated the separation between surgery in practice and the practice of surgery.

It was interesting to note that even within this group their training skills are often tacit and tagged to general notions of building relationships with trainees.   As for trainees, compared to the demands of ISCP there are relatively few opportunities to externalise their own learning and skill development process in action.   As a group, surgical trainees are not natural reflectors nor should we be forcing them to write reflective commentaries in their portfolio but what we might expect of training is that it develops a way of being with other professionals that allows the development of dialogues and interactions that foster support, insight and shared understanding ….this is the concept of professionalism in training   (in contrast to professional training AKA ISCP).   A highlight of the ISCP evaluation process was to observe two TAiP courses and interact with participants. On one occasion Ms Vig, one of the course leaders, broke away from the more formal educational aspects of the course to 'act out' a training discourse with one of her trainees. Loosely scripted, the power of this im- provisation was evident to all, as Ms Vig dealt with personal, professional, assessment, and ISCP agendas in a fluent dialogue where trainer and trainee negotiated and probed each other expectations, requirements, beliefs and behaviours about training opportunities, ser- vice needs, holiday entitlements, other students hospital politics and protected theatre time for training. …to mention but a few!!!

5.2   Professionalism in training….its all about values.

The hallmark of the true professional is their ability to support the development of new members of their profession. The impetus for this does not come from protected time allocations, adherence to curricular models and training trajectories but through the relationship between mentor and surgical apprentice. This in turn is based upon their mutual ability to manage and maintain a dialogue that encompasses technical and interpersonal dimensions that makes values and beliefs explicit and the currency for transaction in the surgical training setting. This sounds like its more about interpersonal relationships than surgery but it is not because the nature of these dialogues and the realities of these value systems is that they exist only in the practice world, in the clinic or theatre, in the moment, in action.

For some ISCP enthusiasts the instrumental power of the programme, its deconstruction of what it is to be a surgeon sits relatively comfortably with a value system that seeks to 'simplify' and demystify the act of training.
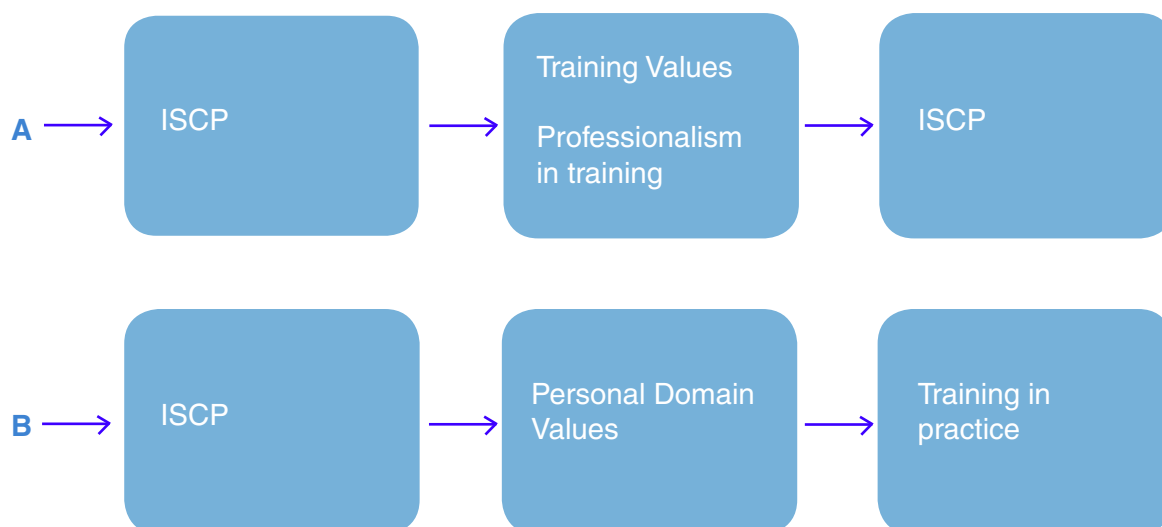
In the ISCP world of training there is a good deal of interaction with operative procedures being logged along with competencies and topics covered. This brings with it a fixation about the quantity of surgical experience and an enhanced anxiety experienced by both trainers and trainers about curricular coverage and competency review and progression. The quality of surgical training is of course related to this experience but it is no where near as direct a relationship as we may like to think. The rigorous way that some surgical trainers apply ISCP can be complex. For some ISCP enthusiasts the instrumental power of the programme, its deconstruction of what it is to be a surgeon sits relatively comfortably with a value system that seeks to 'simplify' and demystify the act of training. Conforming to the structures of ISCP is in itself an act of membership, and a connection with the wider surgical community and as with the trainee, brings a sense of completeness to the process of training and being trained. However, this viewpoint is more often than not tempered by an acceptance that ISCP takes the trainer only so far and that in the act of training, there is a dimension that goes well beyond the confines of ISCP formats and training models. This reflects itself in a versatile set of training behaviours where there is adherence to ISCP rules but at the same time an active desire to modify, ameliorate or even subvert its influence on training driven by a different set of values that are constructed locally, in the domain of every day practice and derived from training experiments with trainees. For the 'old fashioned' surgeon you can take ISCP or leave it in terms of your professional value system. But if you are a trainer or indeed a trainee actively constructing your values about professionalism during training then there is a tension between ISCP process and your practice …and this is where ISCP is at its best as an agent of growth and change. In this setting, ISCP triggers choices, and choices illuminate the values attached to professional development as well as a sense of what it is to be professional. Professionalism in training is all about colliding value systems. Using ISCP is not and should not be about conformity and comprehensiveness when its potential for training is so much more likely to realised when it helps create tensions between what trainers and trainees value.

> For the 'old fashioned' surgeon, you can take ISCP or leave it in terms of your professional value system . But if you are a trainer or indeed a trainee actively constructing your values about professionalism during training then there is a tension between ISCP process and your practice …and this is where ISCP is at its best as an agent of growth and change.

5.3

A → **ISCP**	→ **Training Values** / **Professionalism in training**	→ **ISCP**
B → **ISCP**	→ **Personal Domain Values**	→ **Training in practice**

Professionalism in training pathways and ISCP

Pathway A reflects a relatively passive mode of action for ISCP. ISCP is acquired by the trainer and trainee at a technical level and engagement is driven by the rules of the system and the benefits of membership of the wider surgical training community/specialism. ISCP is part of training but enacted rather than engaged with by trainer and trainee. In this pathway it is relatively easy to adopt ISCP as a training pedagogy and as a surrogate trainer whilst retaining a value system that may be completely at odds with its technical-rational approach to surgical training. ISCP is assimilated and delivered to its various audiences as per its specification.

Pathway B is similar to A but with two major differences . ISCP triggers engagement and reflection about the personal and professional values underpinning training and refines and tests these in practical training situations. ISCP is not accepted or rejected without a test of its fit with existing training values.   There is transformation and subversion of the ISCP 'rules', dialogues and reflection around the best use of its systems and the timing of their use, what to do and not to do, how to enhance its use in local settings or in the light of personal practice.

All of this mutative activity is the basis of curriculum development and should drive the evolution of ISCP but this does not happen because ISCP is unresponsive at this level and inflexible in its reactions to this type of development. Pathway B works for local surgical practitioners in terms of their own professional development as long as they reconcile their engagement and experimentation in training with the enactment of ISCP protocols and procedures as the outcome of their activity. The ISCP ghost box at the end of the pathway signifies this virtual state of ISCP and what might be in terms of a more interconnected version of the programme that reflects the personal and professional priorities of individual trainers and trainees and the ways of training that they value and work for them in their setting. The trainer I not reproducing the ISCP model of pedagogy, nor are they just replicating their way of doings things ..their craft skills…they are with their trainee opening up a way of finding out what matters to both and how the training can relate to this agenda and the ISCP. Triangulation is the key to creating a concept of ISCP a personal theory of action for training but it has to have a strong trainer trainees dialogue and all that goes with the maintenance and development of this dialogue.

5.4   ISCP is external to the training process; it is external to trainer professionalism and trainee values and behaviours. Where do you use it? At the beginning and end of a training experience …yes why not …it is pretty well optimised for that….but in the training moment and when you try to learn from the training experience, the position of ISCP in the training milieu constrains training dialogues and has a tendency to degrade them too quickly to feedback sound bytes or the premature closure of ongoing personal review processes. ISCP methodologies, too easily, cause the displacement   and disaggregation of dialogues between trainers and trainees in time and space.   More immediate, non judgemental feedback and more evidence of training dialogues need to be captured by ISCP systems … if they can or need to be captured at all. It is not that ISCP systems prevent this happening, they don't, it's the concept of ISCP making sense of or accrediting or validating or capturing training experiences that gets in the way.

5.5   We started this section by asking the question …where do you use ISCP? It would seem that you use it where you can have the maximum input into its systems…that is, where you can engage with it rather than enact its protocols and procedures. When this is done ISCP will become responsive and mutative. Consider some of the features of ISCP that might be open to this approach:

The MSF /360.

ISCP MSF assessments collect different perspectives on performance and presents these for review in a very efficient way. The key task is to link this instruments feedback to the interpretations of the supervisor and the trainee. The MSF is sometimes managed in a way that results in colleagues being supportive and helpful…not colluding, but not being over critical either. Unfortunately, this outcome is not easy to train on and leaves trainer and trainee without a strong interpretative focus which will illuminate the values beliefs and behaviours of trainee and trainer.   The fact that an MSF has been carried out is not enough. It must produce evidence of a dialogue between trainer and trainee that links insight, awareness and performance. Both must have a vocabulary and a way of expressing their views that is non judgemental and illuminating. The discourse around the MSF is as important if not more important that the MSF itself. This discourse should be represented within the portfolio in a recorded conversation and presented as a trainee 'case' presentation . There is concern that EWTR reduce time in theatre and the amount of surgical experience, but rather than fight EWTR on the grounds of the need for more time with patients, there might be case for saying that time away from theatre should be used constructively to raise standards and expectations regarding the quality and quantity of trainee commentaries and annotations not just of WPBA experiences but of their operative logbooks. The quality of interpretation and insight, the interconnectedness and the grounded nature of these commentaries being the focus for external review.   The ability to say what is valued and how this is achieved through training.

Similarly instruments such as CbDs are underdeveloped by ISCP systems. Typically Case Based Discussions are used early on in surgical training and tend to fall out of favour in preference to DOPS and PBAs in the later stages of training.

However, in terms of enriching personal and professional engagement through ISCP there is no reason why CbDs should focus purely on patients issues and the trainees handling of it but the extrapolation of the case as a wider focus for research audit and extended dialogues with the wider community of practitioners and stakeholders. The evidence base here is that the trainee and trainer can initiate,sustain and develop dialogues with others that are based on their interpretations of surgical actions and checked out amongst the wider society…this may lead into audit but again it should be something that EWTR 'time' could be used for…. positively reframing EWTR through ISCP.

5.6   Finally. ISCP learning agreements LAs are a central feature as with any outcomes based model of training. They are evidence of negotiation between the espoused curriculum, what can be delivered and the transactions about training opportunity brokered for the trainee by AES and TPD. Some trainees have difficulty in getting there LAs started. Most seem to miss out on interim reviews and then scramble at the end to have them signed off just before ARCP. Some LA's are crafted with ISCP curricular objectives nicely dovetailed to additional tasks and training goals linked to local areas of expertise and surgical opportunity. The problem with this process, and this is reflected in the pathology of LAs described above, is it is a soulless process that is more tick box in character than it should be. The modus operandi of ISCP does LA's efficiently but largely without real personal engagement. Creative trainers have evolved their own systems to 'front end ' LAs with the discussions and dialogues that unlock what matters to the trainee and to them during their period in the unit . This is the back of the envelope precursor to ISCP LAs but it is no less important. It is undoubtedly the precursor of a formal LA that has meaning and reflects not just opportunities in theory but intentions and shared expectations. It requires a form of dialogue both exploratory and honest that may need development but it is the essence of engagement. This process and these dialogue should not be lost in the translation to LAs. They should be captured in the portfolio as evidence of coaching dialogues that are ongoing throughout the attachment and reflect the trainee story non judgmentally through the words and actions of the trainer and trainee. These pre cursor discussion are not instruments that can be signed off but only continuously interpreted and reinterpreted by trainers and trainees who make their editing and annotations accessible through the ISCP portfolio.

5.7   At the heart of ISCP enrichment is the optimisation of feedback.   The act of giving and receiving feedback underpins training engagement…but by degrees. Instant feedback, personalised feedback, feedback that stimulates interaction and debate, relevant feedback are always better than disembodied feedback boiled down and edited and presented cryptically and impersonally.   ISCP can stimulate the former but tends to record the latter. And it is the digital permanence and the framing of this form of feedback record that ISCP systems muddy the waters with by placing feedback, given formatively, into what can become a summative context. Whenever feedback is placed in a portfolio, and others review or read it, does it remain a portfolio or just an assessment record? Does judgement turn feedback into criticism automatically? These dimensions of ISCP feedback impact on its effects and its form. ISCP conceptualised by the trainer or trainee as a 'training system' and something that is applied to training in much the same way as you might send a junior staff member on a training course generates feedback that is too easily bound by ISCP parameters and a summative trajectory (WPBA, LAs curriculum). Effective coaching and feedback has to go well beyond ISCP requirements, but the scope and quality of the feedback process between trainer and trainee are easily constrained by the ISCP methodology and its technical concept of feedback. The role of ISCP in recording and capturing feedback, all be it in a non narrative format and often linked to assessment, is fine,but should it not also try to enhance and develop the fluency and quality of the coaching (surgeon to surgeon) dialogues between trainer and trainee or perhaps preferably and more powerfully…mentor to apprentice?

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5.8   It is not within the remit of this evaluation to prescribe a feedback methodology for ISCP. However, it might be illuminative to take one dimension of a feedback strategy as a focus for future consideration. In this section we have already said something about ISCPs tendency to make formative feedback seem judgemental and potentially form the basis of summative assessment. This is of course an indirect effect of ISCP, but the very act of recording a WPBA and making it accessible to other does this instantly.
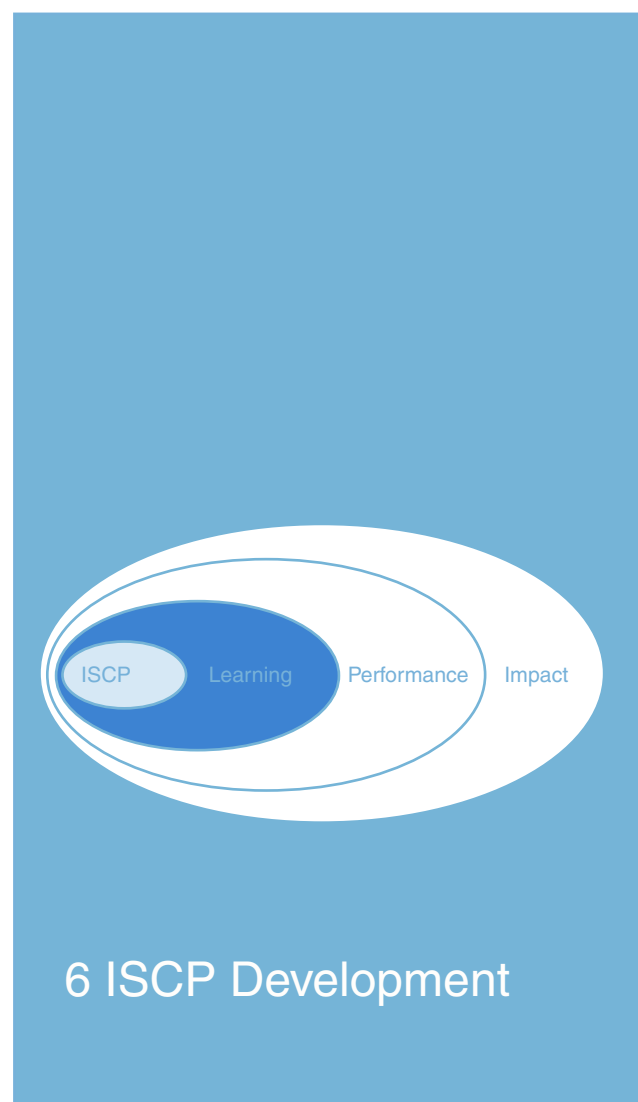
The systematic skill and competency acquisition focus of ISCP does something to trainers and trainee feedback …it facilitates an interpersonal state similar to an autopilot where ISCP is perceived to take responsibility, through recording and enacting ISCP requirements, for the analysis and shared understanding of feedback based on someone else's logic about performance and progression …not the trainer and not the trainees beliefs about themselves and their strengths and weakness of their training. ISCP formats rush users into judgemental mindsets before they have had time to work out how training works for them in a particular instance with this trainer or with this trainee….Do t rainees wait to the last minute before updating their portfolio (prior to ARCP) because they are disorganised, lack confidence and competency or are lazy or afraid of 'failing' ..perhaps, but probably not. What might be added to this symptomology is the fact that it takes them longer than we know to develop a richness of interaction with trainers and a confidence with the feedback that they receive. Additionally, it takes longer to manage the uncertainty about reading and responding to the feedback they do receive when ISCP feedback is perceived as judgemental not descriptive/analytical and remedial more than developmental?

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ISCP Learning Performance Impact

6 ISCP Development

The evaluation of ISCP has highlighted many of its strengths and weakness. An under appreciated contribution of ISCP to surgical training, all be it strategic in nature, is that it has made people choose what they value about training. The choice is not to use or not to use ISCP systems, but what sort of trainee and trainer I choose to be. ISCP has heightened peoples' awareness of what they value in training and their own personal training values. It has made professional training and training professionalism in Surgery more attainable medium term goals.   In conforming to internal and external pressures, ISCP has taken on a role and a set of responsibilities that have satisfied a number of its stakeholders. This is not enough if it is to fulfil its true potential and have a lasting impact on the surgical community.

6.1 Kirkpatrick Reaction level

In the context of Kirkpatrick's model, reaction to ISCP is mixed and reflects the clash of value systems operating in the surgical training world.

Negative reactions to ISCP have been ameliorated in many cases by software updates, usability enhancements, technical adaptations and not least the personal support of the Helpdesk teams and the Regional Coordinators. Trainers and trainees have invested time and effort in getting to the know the ISCP system and Regional Team Members and Help Desk support have done a tremendous job in inducting and troubleshooting operational ISCP issues.   The more cynical observer of ISCP's history might say that all of this effort, not least combined with the authority of the Colleges,was essential as a result of ISCP misconceptions and the prior conceptions of trainees and trainers at launch.

6.2   Q&A Did ISCP bridge the performance gap between the Colleges aspiration for more professional, accountable and effective training programmes? The answer is of course, yes and no. Yes ISCP did change surgical training,…..yes it made surgical training conform to a set of external rules and regulations…..yes it did provide an explicit curriculum and a pedagogical model for trainers and trainees to follow….did it hook enthusiastic trainers and trainees.. yes. Did it win hearts and minds in the sense that it could be assimilated easily into personal and prior conceptions of training …probably not, did it resonate with a priori surgical training values ….sometimes and sometimes not,   did it set up tensions between training beliefs and practices…. yes, but did it motivate the enhancement of the relationship between trainer and trainee, did it energise the essence of good surgical training did it build on what was good about the apprenticeship ideas that it challenged …probably not.
This deficit may have been inherent in aspects of ISCP programme design and development but the weaknesses were mainly because trainers and trainees did not or were not prepared in ways that allowed them to see and act in ways that took their beliefs about training forward. ISCP was plausible, it was potentially fruitful as model of training management, it created dissonance amongst practitioners, the portfolio metaphor was a powerful idea for holistic training that would encompass a range of values and heterogeneous practice not least notions of apprenticeship.

In effect all the ingredients for radical change, but ISCP never fully realised its potential as a basis for individual 'research' and support into the interpersonal and personal development of a surgeon in training. ISCP was too powerful an idea and too strong a pedagogical model to allow its users to experiment with its assimilation and adaptation into their way of training.

6.3 Kirkpatrick Learning level.

ISCP and the learning that it is designed to promote is made evident through its assessment instruments .   The menu of sophisticated WPBA instruments evaluate learning on the job and assess it through the ARCP process. Individual assessment do give some insights into trainee activity and record progress but rarely in a truly formative non judgemental way . One cannot avoid the thought that ISCP assessments (WPBAs) correlate highly with ISCP goals and curricular blueprints and course management systems but have a relatively low correlation with the changes in behaviour and competency that they are designed to promote and track.   ISCP assures that assessments are enacted and recorded but they seem to be underpowered when it comes to their use in driving personal and professional change… they are too generic and too inflexible to achieve this subtlety of action and the negative prior conceptions of some trainers and trainees don't help. In ISCP, assessments benefit ISCP credibility and accountability more than the professional development of trainer and trainee. Assessment systems, quality assure the training programme, quality manage the assessment process but have limited influence on the quality control of training at the level of trainee/AES, the training culture, individual motivations, shared values, confidence and professional integrity. The latter happen almost in spite of ISCP.

6.4 Kirkpatrick Performance level.

At this level we are asking .. 'can trainee surgeons do what we expect of them in their training setting'. Only the trainer can really answer this question authoritatively.

Certainly there is a lack of confidence amongst some trainees about the readiness to progress in training in spite of achieving ISCP milestones and there is a reported trend that says that some post CCT surgeons do not feel ready for consultancy. What ISCP tends to do in the sphere of performance evaluation is to create a hesitancy about the formal transitions marked by ISCP curricular progression, ARCP review of ISCP portfolios and the feeling of being trained. This hesitancy is linked to individuals not having the confidence to align their own appreciation of skills and competencies, values and practices, in different communities of practitioners, and to create training experiences and opportunities that are a reflection of personal needs and individual professional goals. This lack of fluency in training and uncertainty about readiness to progress comes from not having control of the authorship of your own training 'story' but rather reading other peoples' annotations of events in the margins written in the language of ISCP instruments and recording formats.   As for trainers and their review of trainee performance there is much scope for narratives to be constructed and shared but as we know with EWTR and shift working there is a feeling that this is very difficult and that set piece ISCP feedback activities around competency don't help. However, the confusing element associated with ISCP and current working patterns is that they seem to reinforce the quantitative mindset of trainer and trainee . More procedural, specified activity in and around theatre equates with good training but at the same time distorts the protagonists opportunities to address how the quality of training dialogues may resolve the conflicts that exist between the value systems of a trainer who wants to be a mentor and a trainee who wants to be coached rather than assessed.

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6.5 Impact Level

In terms of Kirkpatrick's model the highest level of evaluation activity is reviewing how a training programme has impacted on its audience. It is fair to say from this evaluation that ISCP has had considerable impact and has met the expectations of external bodies who seek accountability, transparency and responsive systems of training management.   ISCP has introduced innovation and created dissonance in the surgical community and it has placed within the community a set of training and assessment challenges that have been largely met through collaboration, collegiate support and cooperation.   ISCP has performed well in this regard. However, ISCP has also underperformed in its readiness to complete the evolution of surgical training and the establishment of a training culture that is driven by a desire for professionalism in training as well as high level of professional training.   A training climate where strategic compliance with ISCP is not the end point of intervention or all that can be reasonably achieved, but a setting that gives trainer and trainee responsibility for and the opportunity to develop and research the ways of training that reflect their needs and circumstances at any given time in their training. In short ISCP has not been as effective as it could have been in the professional development of trainees and trainers. … making them better trainees and better trainers.

6.6 The final section will look at how this might be achieved in a developmental plan in support of surgical training through ISCP.

1. Reaffirm and restate the importance of the relationship between the trainer and the trainee.

Acknowledge the way ISCP may have distorted and modified this relationship at the level of basic training values and operational practices. Affirm the dialogic nature the trainer/ trainee relationship and reframe this as one of mentorship and apprenticeship. Illuminate the differences between educational supervisor and trainee and mentor and apprentice. Develop strategies that enhance surgeon to apprentice surgeon interaction and dialogue, reduce the emphasis on the technical training of trainers in ISCP and focus more on the enhancement of coaching/mentorship skills through ISCP. Heighten the profile of surgical mentors and the craft skills that they deploy with apprentice surgeon.

Foster training for surgical mentors that is local in origin, enhances the surgical skills (not necessarily training skills) that make practice explicit, understandable and constructive for the surgical apprentice. Redefine professionalism in training not as simply concordance with external curricular requirements but as the ability of surgeons (not 'trainers') to develop an explicit relationship with apprentice surgeons on the basis of shared values and a common understanding of the trajectories of training. and apprentice surgeons capable of managing, negotiating, researching and evaluating their own training in ways that are explicit, accountable and meaningful.

2. Networked isolationism

The successful development of a national system of surgical training has been a constructive and productive process generating consensus amongst surgeons and between surgical specialties. ISCP has been a considerable success in the way that it has been used to raise the profile of surgical training and make it accountable and transparent to stakeholder groups.   The impact of this process of nationalising training and the legacy of the methodology chosen to implement ISCP is that it has rather overwhelmed the primary productivity of curriculum development at regional, local and school levels. There is a clear need to re-establish and redefine the role of individual surgeons and surgical training organisations in relation to ISCP. It could be construed that local power has been diminished by ISCP and that a national system of training imposed on surgeons reinforces passive acceptance of 'big brother' and the drive for local autonomy. However, there is no doubt that it would be a retrograde step to contemplate returning to a system of local training fiefdoms (even if it could be squared with governmental policy in the liberated NHS). What is required in the 21st century is a flexible system of training capable of responding primarily to the individual as well as to local and national needs utilising training networks such as ISCP. In this evaluation the isolation of the individual by network technologies was considered. In response to this influence and the need to reassert the importance of the curriculum implementers as the only valid developers of ISCP, new roles have to be formulated for the key members of the surgical training team. The existing roles within ISCP, particularly AES and TPD roles need to be reviewed and redefined. The underlying assumption in these roles, as they are configured at the moment, is that they are an extension of the trainee's support system and variants of the lead educator/ trainer profile.

The division of labour between TPD, AES and indeed the Head of School and Deanery is in a ISCP network not clear.   They are all called upon to perform ISCP related tasks either directly or indirectly but little is known about their skills and interaction with the informal and ad hoc networks and personal and professional networks that make training happen in local and regional settings. The role of a TPD or AES may be defined in terms of what the Gold Guide says or how this is translated into ISCP management practices but these formal role definitions mask the multiplicity and interconnectivity of the actual roles of surgical trainers and how these are in turn interpreted and played out in ways that make training possible in the local setting. In the ISCP context it may be that the division of labour amongst individuals and a hierarchal system of management relationships needs to take account more of the overlapping and synergistic roles of the training team and each individual's personal contribution to curriculum development and training. ISCP developers have designed what may seem to be a pedagogy for training but it is not. What it can be is an infrastructure for training development that creates a way of being a surgeon in training, constructed by surgeons, surgical teams and local Faculty.

As long as the desire for central control of ISCP exists and its components remain interlocked and interdependent then it is difficult to see how it will ever become permeable to the type adaption pressure that allows users to shape its systems and implementers to become developers.

The difficult thing to do now is to step back from the control of ISCP, to let go of ownership whilst continuing to support its use, to make it a benefit of membership rather than a compulsory purchase, to conceive of it as part of a prccess in the development of surgical education and training rather than a training template or pedagogical product. ISCP conceptualised as an organic entity capable of responding to its environment, changing and growing rather than a crystalline structure growing along predetermined digital pathways.

More should be done to profile how trainees and trainers use ISCP, to focus on the fact that ISCP is used differently by different groups and can be a useful factor in the creation of mentorship and apprenticeship approaches complementary to ISCP. In this regard triangulation, between the trainer and the trainee and ISCP is the key to effective surgical training. This interrelationship should <u>not</u> be construed as a dynamic balance where each element supports the others equally but as a constructive way of formulating and negotiating training plans. Only when all three are considered and taken into account can the relationship between any two work well.
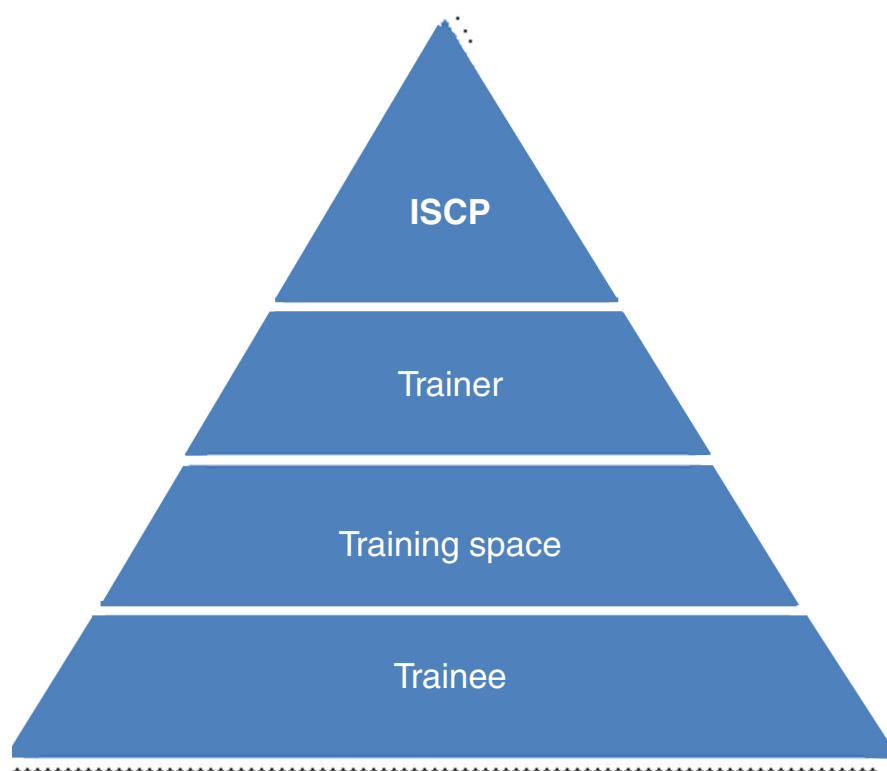
In a number of instances within this evaluation ISCP has been labelled as unresponsive and non reactive to the needs of trainer and trainee. This has been related to the e-portfolios structural and conceptual distance from flexibilities and training practices within local training settings and its openness to shaping by its users.   Some of this may due to the internal efficiency of ISCP quality control but in large measure it is probably more to do with the disconnect between the curriculum developers and the curriculum implementers at School level . …the real curriculum developers.   This disconnect in turn strongly relates to the interference and inefficiency of the external quality monitoring and reporting systems of the GMC namely the ASR system. This has seriously eroded the dialogue between ISCP curriculum designers and curriculum implementers /developers. Given the paucity and generalities of GMC feedback to SAC groups a situation exists where the future of ISCP curriculum development is impaired by the isolation of SACs from their Schools, trainers and trainees. This in spite of high levels of regional representation on the SAC committees.
This aspect of quality monitoring and management feeds directly into the findings of this evaluation as it reflects a lack of openness in ISCP systems that acknowledge, assimilate and react to local training practices. The craft knowledge of specialist surgical training using ISCP should be accumulated in Schools and directly monitored by SACs. This is prevented from happening by the GMC systems now in place.

SAC groups should be encouraged to develop stronger personal and professional relations with curriculum implementers/developers. A system of self reporting should be encouraged (instead of ASR) whereby Schools of Surgery and regional groups of specialists self report their training strategies and their plans for professional development to SAC groups directly and that a programme of selective follow up visits by SAC members confirm and consolidate these plans both from a local and national perspective …informing and being informed by the reactions of both parties to the specifics of ISCP and the specialist curriculum in that locality. Above all the role of the SAC in supporting and facilitating the implementation of the curriculum, providing national strategies and resources, and negotiating with local providers is enhanced. In the same way that this evaluation has stressed the need to revisit and reassert the relationship between the trainer and the trainee then there is an equal need to build and promote the relationship between curriculum initiators and curriculum developers. This can only be achieved when Schools and SACs are free to react and respond at a more direct and supportive level.

3   ISCP as a metaphor

The evaluation of ISCP has highlighted a 'missing metaphor' that would allow the programme to have much stronger relationship with the surgical community. However, there is no doubt that ISCP is in itself a metaphor….a metaphor of the JCST's efforts to become a learning organisation. In effect an organisation that acts as an agent between its membership and the regulators, has a holistic (socio-historical) view of training and training needs and marries this to a system of training that is functional at the level of regulation <u>and</u> practice. This evaluation has indicated that the ISCP metaphor has been exported to practitioners and largely assimilated on the basis of its plausibility, ease of understanding and its creative dissonance with existing training systems. But ISCP has not been swallowed whole by surgeons because it can conflict with their values and epistemic beliefs about the nature of surgical training. This has led in no small part to surgical trainers developing a largely functional perspective of ISCP.

> But, the emphasis on prescriptive and formal training systems in the workplace and the neglect of local systems of apprenticeship development has led to the emergence of a single dialogue between surgical trainers and ISCP and that dialogue has been about ISCP functionality.

As well as a and a discourse about its utility that is bound up with managerial and organisational learning agendas. This perspective is characterised by the idea that how trainees are trained (ISCP defined) is more important than how they learn. In other words concordance with corporate training approaches are more important than experiential learning. This was never the idea behind ISCP nor the ethos of those who developed the curriculum. But, the emphasis on prescriptive and formal training systems in the workplace and the neglect of local systems of apprenticeship development has led to the emergence of a dialogue between surgical trainers and ISCP has only really been about ISCP functionality. Indeed the legitimacy of ISCP has hinged on its ability to reconcile the balance between meeting the needs of external regulators and its functionality on the ground. Trainers, trainees and the JCST want to talk about surgical training but when this dialogue is translated by ISCP, too often the only common language becomes one of functionality and ISCP responsiveness measured by organisational and systems development / enhancement activities.

Surgeons, surgical trainees and trainers have engaged with ISCP, in so doing they have in

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effect experimented with the metaphor that is ISCP. Perhaps for the first time there has been a way of linking the idiosyncratic and heterogeneous practices of individual surgeons with the wider educational designs and aspirations of the surgical community. The dialogues that support this linkage are however impoverished by functionalist perspectives of ISCP that fail to illuminate and respond to the epistemological differences and the different value systems of practitioners. The impact of ISCP as a metaphor of surgical training has been partly instrumental (concordance with its systems) and partly conceptual. Conceptual in the sense that ISCP is a theory translated into action but adapted and modified by individuals as a new personal stock of ways of training or at least thinking about training and training issues. This conceptual impact of ISCP currently lacks a language and its own set of metaphors. It remains in the shadow of functionalism and will probably remain so until practitioners are given the 'permissions' to research the utility of ISCP and implement it at local level in a form that they can develop and continue to develop. The conceptual impact of ISCP is a difficult notion for organisations to accept given that you have to consign ownership of ISCP to practitioners and trust that it has changed sufficiently the way people think about training that they cannot envisage surgical

envisage surgical training again as simply the way that they were trained. At JCST level, new metaphors need to be seeded into the community that enrich discourse and dialogue between organisations and individuals. Greater clarity between organisational (membership) activities within ISCP and flexible interpretative elements of training (mentorship / coaching) could be constructed and defined with more precision and permissions. The metaphors of apprenticeship and mentorship could be fostered and disseminated as might ways of working with ISCP (practitioner stories). The notion of portfolio seems to have become no more than a descriptor of a collection and collation function of ISCP when it probably has much more potential than this if we look for and invite greater heterogeneity and imagination, curiosity, customisation and creativity within surgical portfolios….beyond what can be easily stored digitally!?

ISCP has been a messenger of change. At the boundaries of practice and policy, the translation of that message is still in progress and in need of a new set of ISCP metaphors that bridge the gap between individuals and organisations between practitioners in different locations and different specialties and above all between surgical mentors and their mentees.

4. Metaphor supermarket?

Apprenticeship as a metaphor is strongly grounded in surgeons prior conceptions of training. It resonates strongly with surgeons' value systems and beliefs about the origins of surgical skill and knowledge. It is often seen as being the opposite of systematic and organised training approaches and associated with historical perspectives of laissez faire (poor) training experiences.

As a bridging metaphor between ISCP and individuals and their communities of practice the concept of apprenticeship has considerable potential. It needs a more active and contemporary interpretation in which the apprentice is neither dominated by the ISCP system nor a free agent but reflects a surgeon who interacts with the practice and institutional worlds not with a subversive or colluding mindset but with the genuine desire to develop an understanding of their training context and the factors that make up a training ecology in which they can thrive and grow.

Mentorship and coaching are powerful notions that draw on both academic and sporting referents. The enabling, non judgmental and trainee focused strategies associated with these approaches place great emphasis on the ability to promote self awareness and personal engagement and the primacy of the relationship between mentor and mentee. Coaching relationships and mentorship seem to provide a way of insulating individuals from organisational systems thus providing an internal negotiated justification for training performance and procedures. Training is never obvious and you don't have to become or indeed label yourself as a trainer or a trainee.

Trajectory and Mapping   These notions have many prior conceptions associated with them largely founded on the guiding and navigating ideas associated with a personal journey through a training space. Trajectory as a metaphor has recently taken on the idea of a training pathway that is inherently individualised and free running but capable of being mapped to and coherent with prescribed systemic aspects of training . Trainee's progress is not seen as linear, pre-specified, time or curriculum dependent but something that maps onto the trainer and trainees interpretations of the training experience as it unfolds. The trainee's experiences (progress or lack of progress) are captured not just in a series of disembodied WPBAs or LA's or process milestones (curricular coverage) but in the ability to interpret the story of their surgical training to date and the events, actions and reactions to training that have determined their current trajectory.   Managing a training trajectory is not the systematic and routine use of ISCP instruments as evidence of progress but the selection of training experiences (perhaps along with attendant ISCP measures) and the presentation of events that illuminate personal training trajectories.

Disconnect and 'going off-line'   Given that ISCP is delivered digitally, metaphors from this domain might have some utility in bridging the gap between individuals and organisations. ISCP is complex, comprised of highly interdependent elements and co-dependent activities. If this complexity has a suffocating effect on trainer and trainee's desire to experiment with ISCP systems in relation to their own practices and training approaches, it might be useful to create permissions for users to deviate from ISCP systems and adopt a more peripheral stance to ISCP training norms. 'Going off-line' in this sense is not parking or rejecting ISCP systems (the collegiate authority of ISCP is important to this process) for reasons of convenience.

Going off line with a training event is done to disconnect it from ISCP systems, to explore consciously and unconsciously its potential within a training situation and then to review the compatibility and incompatibilities of the event with both ISCP and personal training approaches. This type of experimentation with 'bits' of ISCP, whether they be proforma formats, assessment instruments or records, becomes a focus for creative and constructive ownership by the implementers of its systems.

6.7 Finally……………

Surgery and surgeons need to develop a new training metaphor that displaces both ISCP and Apprenticeship. ISCP is a plausible and understandable concept as is the overall notion of e-portfolio. ISCP has created considerable dissonance within the community challenging existing value systems and beliefs about the nature of training. The consequence of this was a level of innovation close to a training revolution. The missing
element in the ISCP story is the generation of constructive metaphor that allows the continued development through implementation of ISCP. If JCST is to achieve the status of a learning organisation through ISCP it has to find a way of communicating with the implementers and users of ISCP in a form that assures ownership and engagement and the continued development of surgical training. Above all we need to construct a metaphor of training that subsumes the praxis (the intention to train) of surgical training, not the production, quality assurance, bureaucratic, educational and political models of those who would seek to define training based on purely what can be assessed, quantified or linked to specific behaviours and outcomes. The metaphor of apprenticeship has a level of affordance in surgery that is hard to circumvent or displace. Every indication of this evaluation is that we should take this as a starting point for the construction of a new metaphor for surgical training, Modern Surgical Apprenticeship, and through this, complete the evolution of ISCP and assure the future of professionalism in surgical training in a form that is consensual, collaborative, communicative and personally valid as well as being accountable, responsive and based on developmental standards. Above all a metaphor that places the relationship between surgical mentor and mentee at the heart of the process.

'Put simply, I believe that intimate knowledge is likely to teach us more than distant knowledge. Personal knowledge is likely to change us more than impersonal knowledge. Knowledge gained with our eyes, ears and imaginations wide open is likely to be more valuable than that acquired when we are conceptually and procedurally blindfolded….Knowledge acquired through the patient process by which the questioner takes time to be trusted and to show care for the answerer is likely to be more significant than that gained by the 'hit and run' merchant who only want to make a quick psychological 'buck'…..
At present (we are) both grounded *on* and grounded *by* too lumbering an adherence to formal procedures (and by too rigid insistence on) defining reliable knowledge as that which emanates from these set piece engagements with a sawn up world'

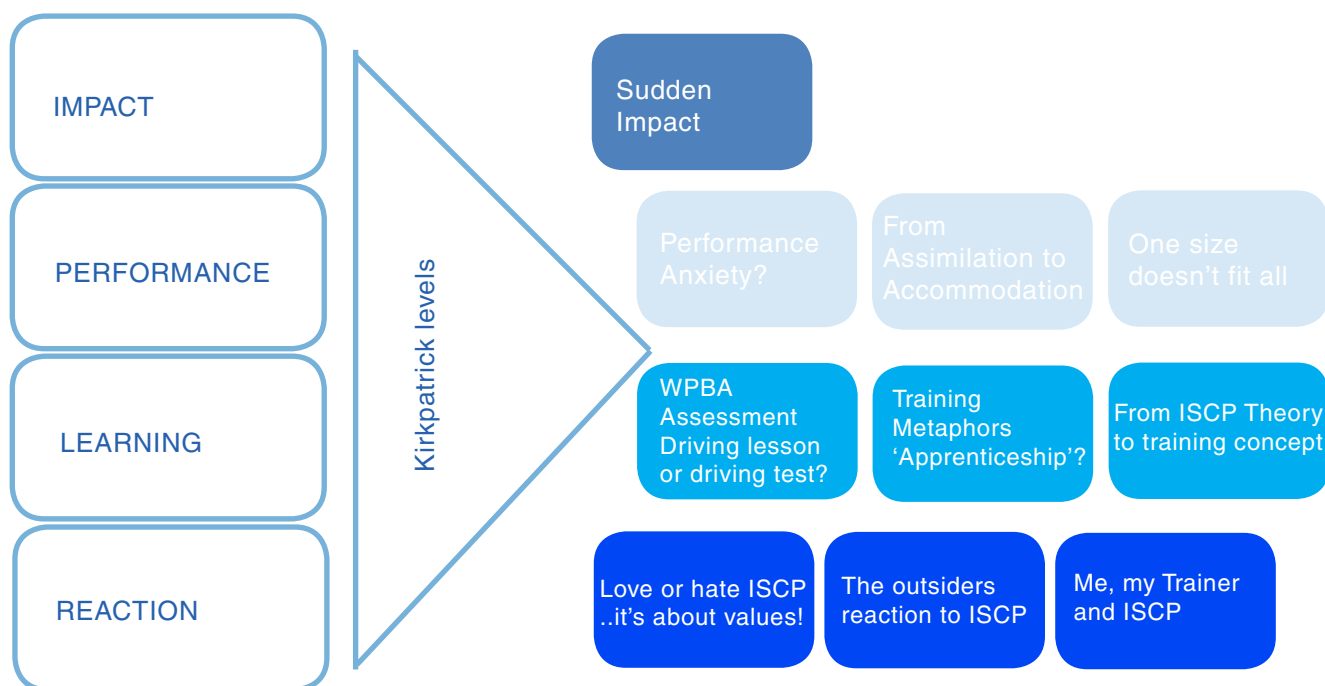Miller Mair (1989) quoted in Neighbour (1996)

ISCP Learning Performance Impact
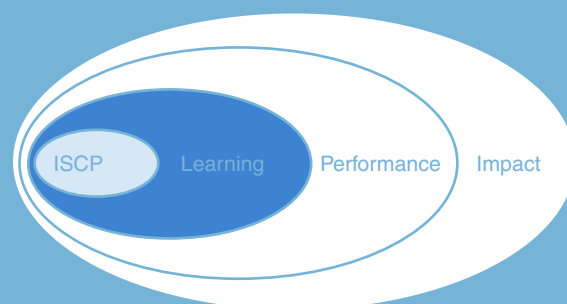
7 ISCP Evaluation

'vignettes'

Conceptual Framework

The conceptual framework of this ISCP summary document is described below in diagrammatic form. This section is designed to give you a flavour of the evaluation findings and interpretations and will in turn be linked to the main report. **The diagram is hyperlinked to text and will let you dip into the document by Control / clicking on the underlined words.** It is a hybrid of the Kirkpatrick model of programme evaluation adapted for this review. The evaluative narratives of ISCP stakeholders were captured in this framework and are presented in the full report as a series of interpretations grounded in educational theory and practice. The conceptual framework below links Kirkpatrick levels to the areas of dependent practice, policy and design that underpin and control the effectiveness of ISCP and its future development.

IMPACT	
PERFORMANCE	Kirkpatrick levels
LEARNING	
REACTION	

Sudden Impact

Performance Anxiety?

From Assimilation to Accommodation

One size doesn't fit all

WPBA Assessment Driving lesson or driving test?

Training Metaphors 'Apprenticeship'?

From ISCP Theory to training concept

Love or hate ISCP ..it's about values!

The outsiders reaction to ISCP

Me, my Trainer and ISCP

ISCP Evaluation

Reaction Level.... and training values

- Reaction to ISCP, whether it is perceived, technically, educationally or institutionally, is bi-polar. The concept and practice of ISCP polarises user reactions because it forces surgeons to make a choice about what they really value in surgical training. Whether the reaction to ISCP is negative or positive, this evaluation highlights that ISCP creates both dissonance and resonance with the value systems of trainers and trainees. This manifests itself in feelings of collusion, compliance, constraint, collaboration and harmonisation with ISCP. These emotions relate to actions such as 'strategic compliance' (tick boxing),conscious avoidance (technophobia) monitoring and negotiating (social networking) or recording and reflecting (meaning making).

- ISCP creates value conflicts in the minds of trainers and trainees because it creates a situation where they have to choose who they want to be,when they want to be, and above all what they want to be as a surgeon involved in training.

- Technical improvements and updates, the strong central support of Regional Teams, Helpdesk and ISCP developers have over time moderated feelings and modified the ISCP experience of users…..but the value conflicts remain.

- Dissonance created by ISCP in the value systems of its users is a positive factor in the management of change and educational development. This reaction has been underutilised in programme development because ISCP has not suggested fruitful ways of resolving value conflicts. ISCP is too powerful an idea and too strong a pedagogical model to allow its users the space to experiment with its assimilation and adaptation into what they personally value about training.

> **Freedoms and flexibilities should be designed into ISCP at political, structural, technological and curricular levels. Simplifying ISCP or making it more 'user friendly' is not a priority. The key issue is to support its assimilation into heterogeneous value systems of users by allowing it to support and sustain individual practices that act on, research into and adapt ISCP methods, instruments and processes and through this enhance its role as a truly national surgical curriculum that can be accommodated by surgeons in the development of their surgical training activities.**

ISCP Evaluation
Reaction Level..... ISCP seen from the outside

- When groups and institutions outside surgery look in on ISCP, what do they see? They undoubtedly see a sophisticated programme that bridges the gap between previous practices and the Colleges aspiration for more professional, accountable and effective training programmes. When viewed from the outside, ISCP has changed the nature of surgical training, allowing it to conform to a set of external standards and regulations, provide an explicit and detailed training curriculum and a pedagogical model for trainers and trainees to follow.

- ISCP is seen as a highly plausible model for training support. Its electronic record keeping systems, portfolio training management algorithms, blueprinted assessments and online curricula unite surgical specialties in a common training framework. ISCP has the characteristics of a fruitful model of e-portfolio based training. There is an awareness that ISCP has created dissonance amongst surgeons and surgical trainees but the e-portfolio metaphor (in contrast to the actual portfolio) is a powerful heuristic that does accommodate a range of values and beliefs about training. In effect ISCP is perceived as a powerful innovation with many of the characteristics of a change agent.

- The professional/institutional/interagency macro level perceptions of ISCP reflect the medico-cultural and political imperatives surrounding it development. However, in the area where bottom up practice and top down innovation meet at the boundaries of interaction and interpretation, perceptions of ISCP are blurred by uncertainty. It is the received training structure of surgical institutions and a complex resource supporting praxis, training relationships, assessment and training management at the micro level of the trainer and trainee. In the uncertain middle ground between these two per-ception people loose sight of their relationship with ISCP.

free of charge may have less to do with economics and finance than with triggering evidence of ISCP /institutional learning and the factors that promote or inhibit the capacity to connect with and learn from its users/members. The effect of ISCP can only be optimised if training organisations support and learn from its affect.

ISCP Evaluation

Reaction Level..... trainer and trainee induction

- The creation of a technical web based infrastructure through ISCP was dependent on communicating with its users. The responsiveness of ISCP to the training needs of its users and the effectiveness of this support was and is impressive. Regional representatives, College staff, ISCP Help desk members and local enthusiasts have largely overcome matter of fact technical problems associated with logon and using the system effectively.

- ISCP as a training infrastructure has been well supported by excellent programmes such as TAiP which have addressed both the technical and educational needs of surgical trainers and trainees and the external requirements of Deanery and Gold Guide accreditations.   The development of trained professionals was a necessary and critical step in the development of ISCP. In reacting to this need, technical and instrumental training was the dominant paradigm. This approach was also consistent with the strategies developed for the diffusion of ISCP as an innovation. What was underdeveloped by this response and this style of training were the qualities required of a surgical trainer/trainee (albeit a ISCP trained trainer/trainee), both personal and interpersonal, to affirm or adapt the personal values and fundamental ways of being in a community of surgeons in training …..reacting to ISCP through surgical professionalism rather than simply becoming a trained trainer.

- A highlight of the ISCP evaluation process was to observe two TAiP courses and interact with participants. On one occasion, one of the course leaders broke away from the more formal and technical educational aspects of assessment to 'act out' a training discourse with one of her trainees . Loosely scripted and improvisational, the power of this exchange was evident to all as the trainer and trainee dealt with personal, professional, assessment, and ISCP agendas in a fluent dialogue where trainer and trainee negotiated and probed each other expectations requirements, beliefs and behaviours about training opportunities, service needs, holiday entitlements, other trainees, hospital politics and protected theatre time for training. …and ISCP.

Induction into surgical training needs to be more highly evolved to embrace not only the technical demands of ISCP and the statutory responsibilities of training organisations but also the professional relationships and ways of working that relate to being a surgeon in a specific training setting. Mentorship skills and the creation of professional apprenticeship relationships should be actively constructed in formal induction programmes and throughout training. The design of induction programmes needs to place a much broader emphasis of the construction of training relationships and the skills required by mentor and surgical apprentice to achieve standards of excellence and professionalism in training. Surgical professionalism in relation to ISCP should reaffirm, research and react to the needs of individual surgeons as they construct mentor/apprentice relationships. E-portfolio systems and review processes will have to be more permeable to the heterogeneity and incompleteness of the evidence trail of mentorship relationships. Surgical mentorship skills and professional apprenticeships should be a renewed focus of professional development and support.

ISCP Evaluation Learning Level
.... From Instumental theory to training conception

- Reaction to ISCP by trainers and trainees, made clear the nature of the relationship between individual surgeons and their training organisation. ISCP made users accept that they were the agents of ISCP and new training theories, but failed to illuminate how their activities would inform and shape professional development and organisational / institutional learning.

- Reactions to ISCP, both positive and negative, were indicative of the expectation by surgeons that ISCP mediated / modified concepts of training would result in a training infrastructure that was largely in harmony with their values and beliefs about surgical training.

- Negative reactions to ISCP were often focussed on system errors and technical shortcomings. Remediation of these issues has assured trainees and trainers of technical responsiveness but has not resolved the conflict with their value expectation that by engaging with ISCP there will be a restructuring of training approaches that recognise and reflect their activities to reconcile and assimilate ISCP into individual and local practice.

- Reaction to ISCP is characterised by the power of its organisational impact on a responsive surgical community and a failure to respond organisationally and institutionally to the efforts made on the ground by trainers and trainees to reconcile ISCP with their existing conceptions of training and to make it compatible with and realizable in local settings.

> **If the reaction of the surgical community to ISCP is to be used to enhance training and develop surgical professionalism in the future there is an urgent requirement that ISCP re-engages with curriculum implementers. ISCP affect should be the focus for individual and institutional enquiry and action into a new training paradigm that reconciles the theory of ISCP in use with the concept of ISCP in action. The issue for ISCP management and design is no longer how it can be made even more efficient in the workplace but how well it can respond to the reactions of its users by providing a new set of organisational training norms and values compatible with their restructuring of ISCP. Trainees desire to receive ISCP free of charge may have less to do with economics and finance than with triggering evidence of ISCP /institutional learning and the factors that promote or inhibit the capacity to connect with and learn from its users/members. The effect of ISCP can only be optimised if training organisations support and learn from its affect.**

ISCP Evaluation

Learning Level ..... Metaphors

- The organisational impact of ISCP as a training innovation is clear. It is unsurprising that it elicited strong and varied reactions during its launch and development phases . ISCP was designed for impact….. but not necessarily with reaction in mind.

- ISCP was an organisational/institutional strategy at heart, designed to simplify and demystify the practice of surgical training. Its capacity to engage with its target audiences was centred around its ability to impact on its users. The reactions of ISCP users are often interpreted as being technical developmental and structural in nature. This organisational interpretation of reactions largely ignores the differences in the implementation of ISCP that crucially influence its performance at individual and local level.

- The metaphors which often illuminate the underlying ideals of an organisation and its ways of responding to members reactions were conspicuously absent in the development of ISCP but subsequently have emerged as user interpretations of the failings in the training system. 'Tick box culture' is a dominant metaphor used both descriptively and diagnostically in many trainer / trainee conversations.

- The 'tick box' metaphor used in relation to ISCP is a problem framing device that stops well short of being constructive and generative in practice. It has been an ineffective device in bringing about any real changes in the bureaucracy or connectedness of ISCP. Its range of convenience only seems to extend to supporting strategic compliance whilst simultaneously devaluing ISCPs potential as an administrative/management support for learning. A developmental metaphor for ISCP based training has yet to emerge at an organisational level. The absence of a constructive metaphor for ISCP practice may be a limiting factor in the discourse between training organisations/institutions and ISCP users and the ability of ISCP to learn from the dialectic between individuals and institutions.

- The slow emergence of constructive user defined metaphors for ISCP may reflect the dominance of regulatory and external accountability agendas along with the gestalt of QA, its machine and production metaphors and behaviourist definitions of competency.

There is an urgent need for a functional, generative and constructive set of metaphors for ISCP that promote the developmental discourse between users, institutions and training organisations. The use of 'apprenticeship' metaphors would seem to have a considerable range of convenience in relation to the generally held conception of surgical training.

> **The compatibility of apprenticeship metaphors should be explored in relation to ISCP with the goals of constructing a reactive framework that informs the future design and delivery of ISCP, and provides a way of investigating organisational and individual training phenomena that enrich ISCP along with the overall experience of training. It is essential that the emergent metaphor should be compatible with ISCP and widely disseminated by training organisations as a way of responding to issues and problems as well as helping to frame the training experience of trainers and trainees. Above all, the metaphor(s) should illuminate the primacy of relationship building activities between trainer and trainee and the selection and use of organisational / infrastructural systems, including ISCP, that support this process.**

ISCP Evaluation

Learning Level and WPBA Assessments

- The Evaluation of Learning by ISCP carried out exclusively through trainee assessments in the form of WPBAs. This is entirely in keeping with GMC guidelines on outcome measurement, blueprinting and curricular performance. Work place based assessment instruments were built into the design of ISCP from the outset. The translation of WPBA by ISCP into the complex milieu of ARCPs, training attachments, portfolio building and QA monitoring has transformed the instruments by enhancing the designer led, outcome dominated and summative dimensions of these assessments.

- The desire to prescribe (over prescribe) learning outcomes by design, has diminished the role of WPBAs in learning and decreased their perceived utility in support of formative, non judgemental feedback.

- The spirit of ISCP WPBAs remains an inspiring goal for trainees and trainers when they capture the trainees performance on the job with formative feedback and those subsequent performances that can assure and reassure both parties, as well as third parties, that training translates into changes in performance.

- The face validity of WPBAs is high but the consequential validity is probably quite low. In other words trainers and trainees can relate to the process, but the entailments and practical benefits of assessment are too easily lost or deconstructed into pseudo summative events.

- WPBAs conducted by someone closely involved with the trainee are a systematic and structured way to measure performance and stimulate the desire for excellence. Used in isolation or at the 'wrong' time, driven by external administrative or structural training agendas and administered without personal and professional insight or the intention to train on the basis of performance, they easily lose their utility as drivers of experiential learning and development.

The current menu of ISCP assessment instruments must be placed within a much stronger conceptual framework that originates less from the design of WPBA to meet curricular or outcome specifications but the practices of trainers and trainees. The freedoms and flexibilities of WPBAs in their formative feedback role should be clearly delineated from their summative assessment purposes. The driving lesson should not be ambushed by the driving test. WPBAs should not be turned into instruments of training programme validation that assure assessment activity rather than training. The assessment behaviours of trainees and trainers needs to be actively accommodated by changes in ISCP e portfolio systems (and ARCP process). in order to preserve and develop the formative intent of WPBAs and assure that their potential contribution to summative assessment does not distort trainees use and perception of these excellent instruments. The concept of WPBAs in ISCP and in eportfolio should be defined by its users preferably as evidence of a training event rather than assessment. Training events (by definition) will always have feedback associated with them and be recordable in the portfolio but its currency at ARCP will not be defined by the presence or absence of a formal WPBA unless trainee and trainer agree that it has summative value and confirms the success of training plans. The ability to annotate a surgical logbook entry as a training experience /event may provide adequate evidence of feedback and insight into training needs. The selective rather than routine involvement of formal WPBAs in training events may act in such a way as to reinforce and affirm this ability.   A WPBA is part of a training plan, it is not in itself a training event …it should never exceed the status nor distort a surgical training event. If it does then it should be reserved for more summative purposes at another time and place.

ISCP Evaluation

Performance... performance anxiety

- When we ask whether trainee surgeons can do what we expect of them in their training setting, only the trainer can answer this question authoritatively.

- ISCP as a performance measure has introduced a hesitancy into the way trainers review performance, and for that matter how trainees evaluate there own progress. The source of this ISCP induced hesitancy is linked to individuals not having the confidence to align their own appreciation of skills and competency, values and practices, learning needs and training goals with the 'ideals' set out in ISCP.

- The lack of fluency around judgements about performance may reside in a loss of authorship of 'training stories' as they emerge from the activities of the individual trainer and trainee. ISCP can too easily make it seem that you are writing annotations to someone else's training experience in the margins of a story that has little do with you or your experience of training events.

The instinctive and constructive appreciation of a trainee's performance by trainers is too easily distorted by the quantitative, over specified and procedural emphasis of many ISCP instruments. ISCP systems should be more permeable to the dialogues and events that are created when trainers act as mentors and trainees want to be coached rather than have their performance assessed.

ISCP exerts a powerful influence on training by linking performance to a curriculophilic / assessment nexus that makes it sometimes too easy for trainer and trainee to subordinate and become anxious about their natural roles as arbiters of performance measurement, interpreters of professionalism, assessors of actions (knowing and doing) and moderators of the professional guidance, training authority and personal influence that emerge through performance.

ISCP Evaluation

Performance... From Assimilation to Accommodation

- ISCP has trained and entrained a generation of surgeons in the ways of systematic and curriculum based training.

- ISCP has raised awareness of training approaches and the underlying educational ideas that underpin effective training.

- ISCP has set new standards for professional training and trainer/ trainee support.

- Trainers and trainees now need to be supported in their use of ISCP, to adapt its framework to enhance surgical professionalism and the craft skills of the surgical mentor and the surgical apprentice.

> **The performance of ISCP should not be defined by users concordance with its systems but by its ability to motivate and stimulate surgeons (not only designated trainers) to build training relationships founded on shared values and training trajectories that are accessible to management, negotiation and evaluation strategies supported through but not defined by ISCP . The freedom of action and influence of the motivated and charismatic surgeon who trains should be not be lessened or constrained by the policies and prescriptive elements of ISCP.**

ISCP Evaluation

Performance... One size doesn't fit all

- As long as the desire for central control of ISCP exists and its components remain interlocked and interdependent then it is unlikely that it will ever become permeable to the adaptation pressures that allow training implementers to shape the system to their needs.

- The challenge facing ISCP is whether it seeks to be an organic entity responding to and changing with its environment or a crystalline structure that grows along predetermined pathways.

- More effort needs to be directed at making explicit the fact that ISCP is used differently in different settings. The hidden curriculum of users (their experience of ISCP) <u>is</u> the ISCP curriculum

- ISCP is often conceptualised as part of a training triumvirate along with trainers and trainees.   A dynamic balance between all three elements is often seen as the ideal way of constructing training plans. And it is. However, when training is implemented, this relationship needs to become unbalanced, heavily weighted in favour of the trainer and trainee relationship, with ISCP acting as a weak counterbalancing force. (Van der Waal weak force metaphor!)

ISCP is perceived as a powerful pedagogy that reflects the surgical training hierarchy and the division of labour amongst members of the training community. The authority and face validity of ISCP as a work place centred resource has bogged it down in unrealistic aspirations about its role in training implementation and under utilised its power to support training development. The range of convenience of ISCP needs to be actively explored by its users and adapted thereafter to reflect its translation, not transcription, into personal training approaches. In this regard, ISCP authority may need to be relaxed giving it 'permission' to become a training infrastructure that supports the interpretation, evaluation and improvement of training by curriculum implementers.

ISCP Evaluation

Performance Level... Curriculum coverage or construction?

- ISCP was designed with a technical, rational, bureaucratic and outcome centred approach to programme design that has satisfied the needs of external agencies, created a focus for specialty curriculum consensus building and development.

- A consequence of ISCP development and the pressures on curricular accountability, blueprinting and comprehensiveness, the notion of coverage has permeated the measure used to evaluate trainee engagement with ISCP and the general quality of their training experience. Traffic light systems for topics completed, numbers of WPBAs signed off and index cases completed have assumed even greater importance in ARCP environments.

> **More emphasis should be given in ISCP to the selective use of curricular content rather than coverage. The selection of content should not be arbitrary or decided by trainees unilaterally but by negotiations that identify and make explicit the specific conditions of opportunity, training needs, special interest or personal insight that enhance the quality and customisation of the training experience and the development of training relationships. The power of ISCP and its mode of action is its tendency to make users curricular slaves, no SAC group has this as its objective. The true role and the untapped potential of ISCP is to liberate the training relationship from the hegemony of curricular coverage.**

ISCP Evaluation

Impact Level.... Sudden Impact

- ISCP was designed from the outset with impact in mind …it has been highly successful in this regard. Its design, delivery and development characteristics have most of the attributes of a powerful change agent. Early on, ISCP may have been considered as a stimulus for evolutionary changes assimilated over time by the surgical community. In reality this stimulus, the unforeseen power of ISCP methods and modalities combined with the openness of the surgical community to innovation has led to a level of impact associated with revolutionary change.

- ISCP has impacted on its community as a revolutionary change agent at a macro level of training organisation but at the meso / micro level of day to day training it has lacked a collaborative fruitfulness that allows its users to accommodate its ideals and ideas within their own training approaches and environments.
  pathways.

- The locus of training has shifted to ISCP systems and away from the social practice of training. Consequently, the potential for radical change captured in the design of ISCP has been moderated and deflected by its inability to afford its users the freedom and flexibility to assume personal responsibility for its interpretation and development in their training setting.

We have to stop managing ISCP as if it were an evolutionary change agent that can be assimilated by practitioners. We have to acknowledge that it has the potential to bring about radical change in surgical training, if it is accommodated by its users. We should accept that this process of accommodation will change the way that we use ISCP.
If we try to maintain the form of ISCP centrally, technically and politically, ISCP will become non-functional   ….to assure the place of ISCP in surgical training we have to allow its users to interact with it in a way that creates personal utility and encourages experimentation with its structures and systems.   ISCP is not easily assimilated into current practice, it is not more of the same but slightly different. It requires a different approach to training. This new approach can be 'enacted' by ISCP users but the real impact of ISCP will be when users engage with it in a way that changes ISCP. The 'new' approach to training that emerges from this activity will become ISCP and this will be its legacy and its true impact.