

Flexibility Working Group

June 2012 - Report



The implementation working group on Flexibility is responsible for developing and recommending a flexible curriculum that will incorporate new and emerging technology, the social sciences, humanities, and clinical and basic sciences. Students who wish to strive for excellence, research and innovation will be supported by protected time for independent study over the 4 years. Students learn at different rates and in different styles and will be able to utilize personalized learning time to meet curricular competencies. This working group is asked to consider how students will achieve defined core competencies in an efficient and flexible manner and report its findings to the Curriculum Design working group.

Purpose & Principles of Flexibility

Enable students with diverse backgrounds, interests and circumstances are successful in the program, i.e. (a) progress through the program (b) meet exit competencies (c) maintain personal health and wellbeing (d) maintain enthusiasm and passion for becoming a physician.

Students are able to make well-informed residency choices.

Each student's path through medical school is different and the knowledge, skills and attitudes that must comprise our graduates' exit competencies are taught, learned, acquired, reinforced and assimilated in a unique way for each student according to their background and their learning style.

Flexibility in the curriculum must recognize each student's unique path. It will draw on and draw out their individual strengths.

diverse backgrounds, interests and
circumstances...



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meet the team...



Dramatis personae

One of the important features of our new curriculum will be that students will achieve the necessary competencies through contextual learning that is rooted in a constructivist approach to teaching and learning. In a similar vein we think it is vital that ‘flexibility’ as a principle underpinning the new curriculum be contextualized. Hence, this report from our Working Group is a narrative centred around four fictitious students enrolled in our medical school in the near future. We hope that through this chronicle we might showcase for the reader what flexibility is, and could be, for our various real students engaged in our new curriculum. Our students have made their wishes known. They desire more flexibility in the curriculum. However, flexibility means many different things to different people.

Our group has struggled with that broad range of meanings. We do not have all the answers. We offer here simply our thoughts, some precepts and questions.

This report was designed to prompt thought and discussion. So please, read on and let us introduce four new students entering UBC Medical School sometime in the next few years...



Hi, my name is **Susan** and I recently completed my Masters degree in Pharmacology. I would describe myself as an “adaptable” learner. I want to pursue a Masters in Public Health in addition to my MD. I am interested in everything from generalist to specialist - plastic surgery to rural medicine!

Susan Bradley Hardeep Angelina

Hi, my name is Bradley, but you can call me **Brad**. I have been working in journalism for many years but I need a change. I am an "innovative" and "team" learner and I have taken some correspondence science courses. I am interested in pursuing Arts and Humanities in Medicine. I work part time to earn cash and I am married with 2 young children.



I am **Hardeep**. I have a PhD in Neuroscience. I am an independent learner. I have very specific interests. My goal is to be a clinician-scientist.

Hello, my name is **Angelina**. I just finished my Bachelors Degree in Biology. I would say that I am a "standard" learner. I have many broad interests but my main interest is global health.



Hi, my name is Bradley, but you can call meBrad. I have been working in journalism for many years but I need a change. I am an"innovative" and "team" learner and I have taken some correspondence science courses. I am interested in pursuing Arts and Humanities in Medicine. I work part time to earn cash and I am married with 2 young children.

Hello, my name is Angelina. I just finished my Bachelors Degree in Biology. I would say that I am a “standard” learner. I have many broad interests but my main interest is global health.

Students must take charge of their learning.

As much as possible flexibility will be student-driven.



Brad realizes how his Journalism background and the basic correspondence science courses he's taken haven't fully prepared him for the rigours of learning physiology and pathology. He avails himself of the summer pre-med science 'bridging' courses offered by the faculty in June and July prior to his entry into first year in late August.

Brad sees that a number of his classmates are also shy of a strong science background, and with faculty assistance, he forms what he calls a SWAS (Science Weak, Art Strong) group that meets regularly with a basic science faculty advisor who, in the first six months, aids them in their quest for a stronger scientific foundation.

There must be no flexibility with regards to students' required core exit competencies. Our social responsibility and accountability is our contract with the public. We cannot allow a degree of flexibility in the curriculum to be counter to that responsibility.

Hardeep regards the early phase of medical school as a disappointment and a pain, because he "knows it all already". He wants to start seeing patients and especially those with neurologic disease. His PhD work was all about neurotransmitters. He does have a great fund of knowledge of neurophysiology and neuropharmacology, and states that his only wish is to become a clinician-scientist researching the causes and cures of epilepsy.

His faculty advisors and Title Clinician acknowledge his advanced knowledge in some areas and he is encouraged to take some opportunities to break away from his peers during group learning when basic pharmacology is being taught.



He avails himself early on with clinical opportunities and electives to see real patients and to shadow neurologists realizing that to fulfill his dream he must learn well the art and science of clinical medicine and doctor-patient interactions. He reluctantly admits that on his first few formative feedback sessions that he is manifesting weak competency development in collaboration and anatomy.

**There must be flexibility in the offered
modes of knowledge and skill acquisition.**

Susan had described herself as an 'adaptable' learner but Kolb might have rather described her as an "Accommodator", a learner that requires more concrete experience than some.

Susan finds herself struggling in the first learning cluster of medical school, because she has trouble assimilating the abstract ideas of physiology, basic clinical presentations and pathology into concrete notions of disease manifestations and healthful normalcy.



With faculty help, she is beginning to realize this and is encouraged to avail herself of some of the electronic learning modules and virtual patient encounters that the faculty offers as alternatives and supplements to the more traditional seminars and lectures that some of her classmates are thriving on. She excels, however at the lab sessions, and the early real patient clinical encounters affords Susan with opportunities to practice and explore her new found knowledge and skills.

*The new curriculum has been designed and intended as a
4 year curriculum, except, where appropriate and
approved, a student may take longer in order **to achieve concomitant degrees**
(e.g. PhD, MPH)*



Angelina is both thrilled and confused by her early experience in medical school. She has always been a hard worker and a good student and she is now inspired by the profundity of what she has embarked on. Her classmate, and now good friend, Susan, hastalked of how she would like to do a Master's in Public Health (MPH) and Angelina, with her heartfelt desire to help humankind, is thinking that she would too. But how? Angelina thinks that if she could weave the MPH degree course into her medical school training then she could graduate with both an MD and a MPH and be ready to save the world in about five or six years. But the MPH at UBC demands a 42 course credit load, and she knows that the rigours of medical school won't simply allow that to be done onweekends and evenings.

She meets with her Title Clinician, faculty advisors and individuals at the School of Population and Public Health. A plan is formulated for Susan to complete both her MD and MPH degrees in five years, maybe six.

Flexibility in the curriculum can serve to re-ignite and re-invigorate the students' interest in the study of Medicine. Will there be a tolerance for individual student's exploration?

A group of them, including our four, are keen on working in an inner city Vancouver health clinic, that is student-run and inter-disciplinary alongside nursing students, pharmacy students, physio students, etc. mentored and co-directed by faculty. It's called SCHUBC- the Student Community Health Unit of BC. It is the UBC's Faculty of Health own inter-professional student-run clinic/community outreach/health promotion service, aimed at new immigrants, homeless people and other under-serviced populations in downtown Vancouver.

SCHUBC...



Brad is a student in one of the distributed sites, and enrolled in an Academic Learning Community outside of Vancouver. He proposes that spending most Thursday evenings, and all day Fridays at SCHUBC is the best education for him in this current cluster. Three faculty members who help supervise SCHUBC are supportive and are encouraging Brad to pursue this innovative mode of learning. They will mentor his SCHUBC experiences and Brad claims that this SCHUBC regular experience will cover the objectives for the “Complicated presentation” cluster he is currently entering in first year.

This would entail his weekly separation from his ALC and from the regular scheduled learning activities for every Thursday afternoon and Friday. Brad’s ALC Title Clinician has reservations, not so much about Brad but about SCHUBC. Who should decide, and how should the decision be made considering all factors?

Should Brad be given this much flexibility? What are the limits to flexibility in the curriculum?

Brad’s request is channeled through the Faculty’s Flexibility Office whose job it is to advise, govern and oversee both the opportunities and the boundaries of flexibility in the curriculum.

*The curriculum must allow flexibility for students who **require remediation** or who may have **special needs**.*

Susan, Brad and Hardeep are running into trouble...

Things are not going as planned...



Susan in second year has failed a course. Her progress testing had indicated she was having real difficulties understanding and applying the principles of body fluid homeostasis, renal physiology and especially acid-base physiology. Her worst fears were realized in an OSCE when a patient presenting with hypotension following an abdominal tap died a simulated death because of her ineptitude.

Hardeep is formally assessed as unprofessional, after repeated episodes of non-collaborative, non-collegial behaviour as he unwillingly and rudely participated in group learning sessions.

Brad's wife was just diagnosed with Guillain-Barré syndrome and needs weeks, perhaps months, of therapy and rest. His mother-in-law is temporarily moving into town to help, but Brad definitely needs time off to be with his wife and the children.

Fortunately, the curriculum has flexibility for students who require remediation or who may have special needs...

Susan will remediate her failing mark during the three weeks of "White Space" that conveniently (and strategically) falls into the curriculum just after this cluster's OSCE exam. She is successful and proceeds onto the Transition into Clinical Learning phase of the curriculum alongside her classmates. She feels confident and back 'in sync', grateful for the time afforded her to remediate. She has,

White Space - White Space - White Space

however, realized that a concomitant MPH degree pursuit is not for her. She looks forward to her 2 week vacation period in a couple of months when she plans to visit Angelina in Namibia as she is undertaking a MPH practicum experience there.

Hardeep is hooked up with a mentor, and the curriculum affords the flexibility for him and his mentor to meet often. Attitude-building experiences are arranged and Hardeep gradually and definitely builds a new vision for his future realizing that in order for him to be successful in becoming a clinician-scientist he needs the help and collaboration of many. A new and improved Hardeep emerges, shedding his shoulder chip and manifesting a positive attitude in the knowledge that happiness and success depends not just on what work you do, but also who you work with and how you work with them.

Brad's wife dies. No amount of curriculum flexibility can help Brad through this. He is allowed at least a year's 'leave of absence'. Upon his return, the school has every intention of facilitating his continuation of his medical school studies where he left off. The defined, temporal spaces in the curriculum affords Brad with the opportunities to get up to speed again, but also to spend needed time with his children. He will want to take full advantage of the various learning modules that the curriculum offers and make the best use of the flexible curriculum

Defined, temporal spaces in the curriculum should be provided to allow for flexibility options whereby students will pursue enhanced learning opportunities and aspire to excellence.

In the present curriculum design this has been termed "White space".

Will White Space be used simply as extra study time?

How flexible will the White Spaces be?

There should be some 'day-to-day, week-to-week' White Spaces as well as the larger, more visible White Spaces that are prominent on the overall curriculum design.

Will flexibility be at odds with Continuity?...



Angelina's timidity is potentially impacting her full learning experience. Working in groups Angelina is shy and reticent. During Buzz-group and Case-Based Learning sessions it is obvious to her teachers that she has a lot to contribute but she comes across as timorous. In the early patient encounter opportunities she's comfortable just observing, and yet when prompted demonstrates a healthy fund of knowledge and understanding. She has revealed her desire to do an MPH and eventually to work in the global arena, but her mentors realize that she'll have gain more confidence for her to be successful. She opts for a 'study session' only during the first White Space opportunity in January of the 1st year.

Her ALC Title Clinician suggests that during the second cluster she get involved with SCHUBC on a weekly basis Tuesday evenings. Angelina, with the facilitation of the SCHUBC preceptors begins to gain confidence and starts to come out of her shell. At the end of the year she latches onto an elective opportunity at SCHUBC that has students doing health needs assessments with economically- disadvantaged individuals and families in the downtown eastside of Vancouver. Angelina's confidence builds and it shows. She has built a relationship with a family of a single mother and her two young children and continues to follow them throughout medical school providing her with an enriched 'continuity' experience.

*Flexibility in the curriculum will also depend on **the creative work of the faculty** who should be encouraged and facilitated to explore different methods of teaching. The medical school should be pulling out the **great new ideas** from their teachers, standardizing them and weaving them through the curriculum.*

The faculty is lucky to have the dynamic brother and sister teaching duo of Professors Trimp and Trimp, one a surgeon and the other a biochemical disease specialist. Together they have formulated not one, not two, but four different undergraduate 'learning motifs' as they call them. Each motif, designed for the complex cluster in second year, weaves the basic sciences with the clinical sciences into a sort of



innovative “3D” learning system, that the student can engage from various angles. Each motif is fashioned after Kolb’s learning styles and is standardized to the students’ expected competencies.

“When we first arrived at UBC, the curriculum was very traditional- and rigid. But with the active encouragement of the medical school, we were facilitated to develop our new teaching ideas,” Surgeon Trimp says. Biochemist Trimp adds, “We were just responding to the students’ need and desire for more flexibility in the curriculum. The medical school values its role as a pedagogical laboratory for the teaching of medicine.”

Trust, autonomy and flexibility of learning will be weighed against the needs of governance, limited faculty, resources, effectiveness and practicalities. Our Assessment plan with portfolios as a feature may allow some interesting opportunities for flexibility with respect to assessment. However, there are practical and resource constraints to excessive or unlimited flexibility.



Susan is in her clerkship years now and is enjoying it. As part of her portfolio she is regularly submitting reflective essays on her experiences. They are impressive and insightful. She is anxious to explore many different clinical realms and undertakes an elective in plastic surgery in another province. The venue and mentorship was vetted by a faculty process and the elective experience was approved.

Portfolio assessment has been utilized in the past couple of years in the faculty and reflective essay submission may be used as part of that assessment of the students if they wish. It’s been received with trepidation on the part of the faculty who feel at times ill-equipped to accurately assess a student’s performance based partially on their reflective essay-writing. Some students, such as Susan have embraced it, others haven’t and feel it is an imposed ‘artificial’ task.

Susan writes and submits another wonderfully insightful reflective essay on her elective experience in the eastern province where she worked with an experienced plastic surgeon. Susan is seriously thinking of a career in plastic surgery, and with the feedback she’s been getting over the course of her clerkship she feels she’s qualified.

Her elective plastic surgeon mentor sends an unsolicited letter to the faculty stating that, whereas Susan was regarded as bright and knowledgeable, he wanted to discourage her from a career in surgery as she doesn't have the 'right stuff' in his opinion.

Susan is despondent and feels betrayed by everyone. She's been told that she'd been doing so well. Her 'reflections' had been stellar.

*A Faculty office advising, governing and overseeing both the opportunities and the boundaries of flexibility in the curriculum should be formed. **A systematic approach to "White Space" usage and the boundaries of flexibility will be required to allow for the development of each student which will involve remediation for some.***

Flexibility in some venues for learning will involve travel costs, for instance. Should every student be afforded the flexibility of Global (International) Health learning opportunities, for instance?

Would an inability for a student to utilize their "White Space" disadvantage a student? Will some students miss out on flexible options because of their need for remediation? Will only the academically strong be able to access flexibility? Is flexibility in our curriculum an option for a select few or a design feature for all our students?



Brad uncharacteristically and somewhat angrily speaks out at a faculty meeting he has been invited to attend saying that he is speaking on behalf of some of his classmates who may not have had the economic means, nor even the opportunities that some other “favoured” students seemed to have had. Without actually naming her, he refers to Angelina, who was able, he says, to take full advantage of the curricular ‘white spaces’ and engage in flexible, international opportunities, whilst others could only afford to stay at home.

“Some,” he adds, “were also forced to utilize all their ‘white space’ for remediation purposes. If ‘flexibility’ is truly a guiding principle in our curriculum, then why is it available to some and not to others?”

Wherever flexibility is designed and built into our curriculum we must ensure that it is understood in its proper context and is sustainable. We should be mindful of and monitor our flexible curriculum, building on its strengths and correcting its weaknesses

The faculty are somewhat taken aback by the forcefulness of Brad’s scolding. Those in attendance who were party to the process in 2012 through 2014 when Flexibility was embedded in the new curriculum knew that very careful thought and planning had gone into every stage. The medical school had ensured that there was a ‘Flexibility Champion’ present at every planning table. Careful thought and analysis was undertaken when flexible curricular options were vetted. A ‘Logic Model’ that the original Flexibility Working Group employed was used to gain objective assessments of the impact of new programs on Flexibility within the curriculum and inversely newflexible curricular options were assessed against the key principles of Continuity and Integration.

Brad just did not understand, nor apparently appreciate how the curriculum Flexibility had ensured his own success in the program. But then again, it is well known how cynicism peaks in medical students as they approach their final phase of their MD program. Professor Trimp, Brad’s Title Clinician, has a quiet word with Brad after the meeting.

Flexibility in the curriculum should be monitored and should respond to the changing needs of our students, our faculty, our patients and our society

We should reflect on how flexibility in our curriculum should help



Epilogue

students achieve their potential.

Susan Bradley Hardeep Angelina

All four of our students graduated.

Susan went into Family Practice because she realized that she “loves everything about Medicine” and only in Family Practice, she believed, could one truly have the opportunity to engage in it all. She practices in a small rural community, mentors ICC students and is on the Clinical Faculty of the UBC faculty. She was the recipient of the “Best Teacher Award” in the ALC she’s connected with.

Hardeep had his dream come true, and became a Clinician-Scientist, in the specialty of Neurology. His vanguard research has led to real advances in the treatment of Guillain-Barré syndrome and with the new therapy he has pioneered, many lives have been saved.

Angelina is on the UBC Faculty as an adjunct professor, but is primarily located in UBC’s School of Population and Public Health as an Associate Professor and researcher. Her work on disadvantaged populations in the North has led to some real government policy changes. Her husband, also an MD, works in the North delivering clinical care to various communities.

Brad entered a Royal College residency in Public Health and Preventative Medicine after graduating. He teaches at the University of Alberta and works in the North. His "Stories of a Cold Doctor", a collection of heartfelt tales culled from his own experiences, was chosen as last year's CBC "Canada Reads" pick.

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