

HEALTH PROFESSIONS EDUCATION IN TIMES OF SOCIETAL CHALLENGES: ACTING AT THE AGORA

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ABSTRACT

Health professionals' work environments are rapidly changing. This paper aims to describe the implications of societal challenges for the education and training of health professionals. We compare the need for multi-disciplinarity, innovation and flexibility with acting at an agora. In ancient times, an agora was a public space for trade, politics, arts, science and justice. It was open to all individuals for multidisciplinary debates and connected to education and training. Success in the agora demands professionals' development of adaptive expertise. Adaptive experts are efficient and innovative in meeting (new) societal challenges. Adaptive expertise can only be developed in a joint approach by both the professional and the organization. Agency is needed from both sides and inclusive and innovative learning and work environments are highly important prerequisites. The article illustrates this point with examples from the University Medical Center in Utrecht, where we foster such an environment by means of *The New Utrecht School*.

BACKGROUND

The work environment of health professionals is rapidly changing. Drivers of this change include social, demographic, and technological developments, as well as globalization and flexibilization of the labour market (Menne *et al.*, 2020). The Covid-19 pandemic has accelerated these developments and shows that, for a steady healthcare system, flexibility of education and training of health professionals is crucial. In this article, we will describe some of the major implications of the abovementioned societal challenges for the education and training of health professionals. We will give examples from the University Medical Center in Utrecht, where our mission is to train the professionals of the future to provide the best person-centred care possible.

Health inequity is a clear example of a major societal challenge. During the current pandemic, it has become increasingly clear that people do not have identical opportunities for health, nor do they have equal access to healthcare. This is especially the case for those who have experienced socioeconomic disadvantages and for those who suffer from other inequalities that are part of our system, such as race and gender. Current examples of health inequity are differences in the availability of vaccines between countries and the variation in life expectancy even between citizens in different neighbourhoods within the same cities (e.g. Gemeente Utrecht, 2018).

Better education and information for citizens and patients and systematic investments in prevention and care within patients' communities would contribute to health equity as well as an increase of prevention and care at patients' home environments, with less or shorter stays in hospitals (Baciu, Negussie & Geller, 2017). Consequently, there is an increased need for education and training in the field of public health and prevention.

For health professionals, such developments demand a better understanding of patients' perspectives and living environments, collaboration with professionals from other disciplines in a chain (or network) around a patient, and utilization of new technologies that facilitate such interdisciplinary processes. The University Medical Center Utrecht's strategy 2020-2025 refers to this as: *Connecting Worlds* (University Medical Center Utrecht, 2020). Connecting Worlds entails a chain of collaboration between professionals and patients to provide personalized and person-centred care to every patient as a unique person. Furthermore, Connecting Worlds refers to the connection of Care, Research and Education. These three need to be connected in order to: a) give the best care to patients, b) to advance cross-cutting research innovation and c) develop health professionals that are not only an expert in their own specialty or discipline but are also prepared for adaptive and interdisciplinary ways of acting.

ACTING AT THE AGORA

The rapid changes in work contexts do not only affect health professionals, but are also recognizable in many other professions. Professionals' changing work landscape, combined with the ability to commute across borders and practices, can aptly be compared to the Greek Agora (Gude, 2017; cf. Boon *et al.*, 1991). In ancient times, an agora was a public space for trade, politics, arts, and justice, was located at the centre of a town, and was accessible from all sides. It was open to all individuals and connected to education and training in religion, sports, arts, and philosophy. All individuals could equally take part in collective dialogues that examined (societal) challenges by means of argumentation from multidisciplinary perspectives. These challenges were solved by the wisdom of the people, also known as *demosophia*. In this way collective meaning was created, which in turn led to efficient solutions that were broadly understandable. What the agora similarly shows is that true collaboration also demands cooperation between diverse participants in all phases of their careers, and therefore the need to continuously learn and develop.

When we imagine a professional in today's agora, he or she is always in dialogue with various actors. These actors could be institutions or stakeholder groups at an international or local level, such as government, commercial partners, universities or clients. The interaction can be face to face or by means of technical devices. The knowledge claims professionals make will differ in relevance and meaning for these different actors. For instance, a medical procedure can be useful in the eyes of a patient while scientifically there is no claim or proof that it works. And it is also the other way around: a medical study can be scientifically useful in the eyes of a researcher while there is no proof that it impacts the everyday life of patients. In their dialogues with others, professionals should be aware of the possibility that other actors, e.g. patients, can make knowledge claims based on information (e.g. found on the worldwide web) that may not be judged as relevant in the eyes of professionals.

If we look at the healthcare centre as a contemporary agora, investing in multi-, inter- and transdisciplinary training for health professionals is highly relevant. In Utrecht we have done this by means of a new interdisciplinary Bachelor of Science program in health, care and society, as well as in a new interdisciplinary Master of Science program in Medical Humanities. By combining Medicine with the Humanities, Science, and Veterinary Medicine in these programs, students learn to work in interdisciplinary teams, and to integrate perspectives from other disciplines.

At the University Medical Center in Utrecht, students and staff members enter different worlds and act with different groups within a 'modern-day' agora. Some additional examples of how they can learn in a multidisciplinary fashion, or within curricula, are given below.

- First, students from different disciplines work together and try to solve real life problems, didactically supported by challenge-based education.
- Second, patient participation throughout medical education is actively promoted. All medical students follow courses in which they learn how to take different perspectives and learn from feedback they get from real patients and clients.
- Third, medical and nursing science students are trained inter-professionally together as part of their program; students from two or more professions in health learn to cultivate collaborative practices and develop interprofessional skills, for instance by means of interdisciplinary team projects.
- Finally, for the faculty clinical teaching qualification program, we started a multidisciplinary trajectory for clinical education at the workplace, in which teachers and supervisors learn to supplement their teaching practices with workplace-based learning. They furthermore learn together with health professionals from other specializations in various workplaces in the hospital. It is important to develop interprofessional learning trajectories for staff members, as they serve as role models in multi-disciplinarity for the trainees.

As tomorrow's healthcare will change dramatically, this requires health professionals to be able to constantly adapt to unexpected challenges in the agora. The same goes for professionals in other disciplines. Developing adaptive professionals who are experts in their field and are able to deal efficiently and innovative with change is the core of the educational strategy, synthesized as: *The New Utrecht School* (New Utrecht School, 2021; Van Royen, Franssen & Van Geelen, 2019).

SUPPORTING PROFESSIONALS' DEVELOPMENT

To be able to move in the agora and to 'connect worlds', agency and teamwork is required. Agency refers to the ability to direct one's actions and be responsible for them, impacting the context for change (Biesta, Priestley & Robinson, 2015). Agency results from the interplay between individual efforts, available resources and contextual factors, such as the culture and facilities of an organization. Two main aspects of agency are: a) a professional's abilities to direct one's action in the environment in collaboration with a team. This requires being adaptive to the environment one is in - and therefore adaptive expertise is needed; b) a supporting environment that allows and stimulates a professional's development.

Professionals' agency: developing adaptive expertise

When we focus on the professional's abilities needed for agency at the agora, the concept of adaptive expertise is crucial. Traditionally, the training of professionals mainly aimed to develop expertise. An expert has specific characteristics, skills and knowledge in a specific domain that distinguishes him or her from novices or beginners. For more than a century, research in the topic of expertise has been carried out. A breakthrough in research on expertise was incited by De Groot (1946) in studying chess plays. He demonstrated that expertise depends on the recognition of meaningful patterns or situations in a domain and that experts have a superior memory for this. This kind of research has been repeated in other professional settings, for instance among teachers (Van Tartwijk, Van Dijk, Kluijtmans & Van der Schaaf, 2020) and radiologists (Waite *et al.*, 2020). Research shows that expertise is marked by domain knowledge and mediated by patterns of meaning that people attach to situations that occur in particular domains. These patterns are mental constructs, also known as *chunks*, i.e. portions in which the incoming information from the environment is grouped (Miller, 1956; Thalmann, Souza & Oberauer, 2019). They overcome people's constraints of

working memory and provide efficiency as it helps to discriminate between relevant and irrelevant information in (new) domain specific situations.

Consequently, a relevant question for education and training is how to develop expertise. Since the 1990s, many studies into the expertise of professionals have been conducted (Ericsson, Krampe & Tesch-Römer, 1993; Ericsson, 2004). They show that developing expertise is mainly a matter of frequent and longstanding practice. Professionals who gain many years of experience can become skilled and efficient in their profession and build routines. The downside is, however, that following routines too quickly can hamper further development. This phenomenon is also known as the pitfall of too fast routinization or 'arrested' development. According to these studies, only by means of deliberate practice can the highest level of expertise be achieved. Deliberate practice entails: longstanding practice, aiming for high goals, being continuously based on feedback and reflection, and coaching is provided.

A distinction to make within the development of expertise is the difference between routine expertise and adaptive expertise. Routine expertise is important for efficiently addressing common tasks, which are based on similar approaches with predictable results, for instance, carrying out standard procedures. This expertise can be developed by incorporating feedback and reflection and repetition as part of deliberate practice.

Adaptive expertise builds on routine expertise and allows one to solve new complex problems in changing or unpredictable environments, such as working under pressure and in extreme circumstances. Professionals with adaptive expertise can successfully meet new challenges in innovative and creative ways. They are open to change and have a good dose of resilience and self-regulation. They do not only understand whether a certain routine could be effective in a situation and how to carry it out, but they also see why and under what conditions this could (not) be the case. This allows them to better respond to change.

To develop adaptive expertise, we need to offer professionals challenges they can carry out with support from a person with more expertise, i.e. challenges that meet their zone of proximal development. So, giving a beginner a very innovative task can lead to a frustrated beginner, while giving an experienced person routine tasks is going to lead to even more routinization. The development of adaptive expertise is often depicted as an 'adaptability corridor' by balancing between innovation and efficiency (see *Figure 1*).

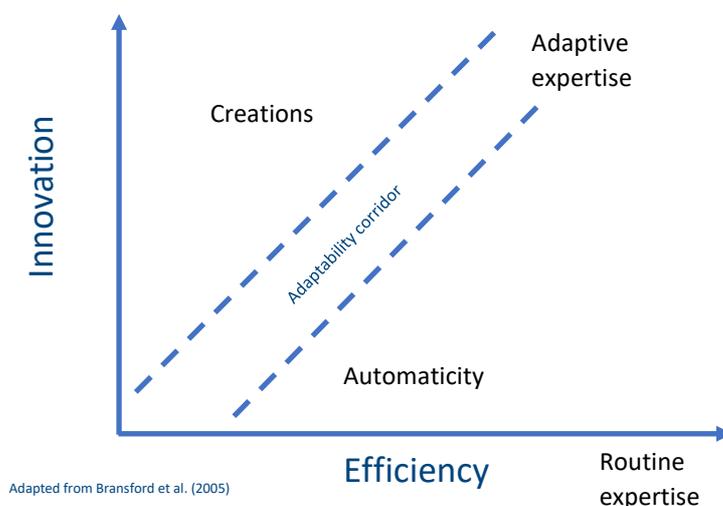


Figure 1: Adaptability corridor

Several studies describe training principles that stimulate the development of adaptive expertise (Bohle Carbonell *et al.*, 2014; Kua, Lim, Teo & Edwards, 2020; Mylopoulos, Kulasegaram, & Woods, 2018; Walin, Nokelainen & Mikkonen, 2019; Ward *et al.*, 2018; 2020). In sum, these are:

1. To use feedback and active reflection on experiences;
2. To develop interdisciplinary experience by means of practice with different complex cases and in different situations;
3. Support by a supervisor.

A safe learning environment within the organization, or at the agora, is a prerequisite as well as transformational leadership and a climate for innovation. Safe learning environments at the agora provide “a climate whereby the learner can feel valued and comfortable yet still speak up and take risks without fear of retribution, embarrassment, judgment or consequences either to themselves or others, thereby promoting learning and innovation” (Turner & Harder, 2018, p. 49). The three principles of stimulating the development of adaptive expertise are used in the training of the professionals.

Professionals’ agency: a supporting environment for change

Professionals can only develop adaptive expertise in a healthy learning and work environment that stimulates them to develop, to innovate and to collaborate. In fact, healthcare professionals are continuously developing at the workplace. This workplace can have specific obstructions that hinder learning.

First, financial constraints and staff shortages mean that there is little time available for supervision in the workplace. Also, for the sake of patient safety it is not possible to allow for mistakes that can be learned from. The systematic and focused investment in the learning of students and professionals should therefore be at the almost non-disputable service of their performance towards patients.

Furthermore, high work pressure, physical and mental strain are always present. This is partly due to a high workload and to an experienced unsafe work culture. For instance, Voogt *et al.* (2019; 2020) studied how residents speak out about their ideas at the workplace. They found that a large number of residents tend to remain silent about their ideas for the improvement of care at the hospital, for fear of negative consequences and the perception that they lacked influence or agency to initiate change. If residents do not feel safe to speak up, their professional development and insights are undermined and that can be a risk for patient safety.

This physical and mental strain is also illustrated by a quote of Humikoswki (2018, p. 343) describing doctor’s burn-out:

Just before dawn on a Sunday, I wake to a frightening declaration in my head: ‘I don’t want to be a doctor anymore.’ I try these words on like they are foreign and dangerous. I don’t want to be a doctor anymore. To be the doctor I want to be, I should be, I want everyone to be, takes more of myself than I am willing to give, more than I even have left, certainly more than I can take [...]. The very words we use – balance, burnout, self-care – fail to admit that when our professional and personal duties swell in a culture that refuses to align them, it is too much to ask.

The aforementioned challenges require fundamental choices in how and for what purpose we educate and train health professionals and how we stimulate learning cultures that foster growth.

This starts with a better balance in the purposes of education and training of starting and advanced clinical and research professionals. Education has three functions (Biesta, 2015). First, qualification, which involves developing the knowledge and skills to qualify for a profession. Second, socialization: participating in a community and developing values and attitudes that are necessary for social functioning and functioning in professional practice. Third, personalization aiming at personal development and identity: what kind of healthcare professional do I want to be, and can I be? So far there is too much emphasis on qualification. We can only develop health professionals if there is more balance between the three functions. This demands a more inclusive climate with flexible learning trajectories, for instance based on personalized learning goals, and more interprofessional workplace-based learning during one's career. Other examples are the use of flexible tracks, elective courses, extra-curricular activities such as summer schools and intra institutional collaboration.

In addition, culture change starts with a change in mindset of leaders and faculty staff. As role-models, they also need to work inter-professionally and foster safe and inclusive learning environments. Professional development only works in a strong culture of change with flexible career opportunities. This means that it should become easier to switch between jobs, albeit at the start or advanced in one's career. To steer in the direction of change, improvement of incentives for and recognition and awards of professionals as part of inclusive interprofessional teams are needed.

In Utrecht we aim to foster supporting learning and work environments by prioritizing multidisciplinary and interprofessional learning and stimulating inclusive and diverse learning environments. For instance, all employees are obliged to follow bias-trainings as a first start toward improvement of an inclusive learning and work culture. Other initiatives are the development of an international Master's in Translational Medicine and The New Utrecht School for Advanced Study. Multi-disciplinarity in collaboration between universities, faculties, disciplines, other institutions and stakeholders are key in this approach.

CONCLUSION

Health professions education and training demands that professionals learn to 'connect worlds' in their professional agora. This demands professionals' agency to constructively do so. Agency includes an individual component and an institutional or cultural component. Both components interact. The individual component requires professionals' adaptive expertise. The institutional or cultural component is needed to foster professionals' development in a safe environment. So far, much of our educational change for professionals focuses on the first – to build curricula and programs to develop professionals who are fit for the future. The aspect of continuing education at the workplace and how professionals can flexibly develop is too often neglected.

To succeed in professional development, a culture of change is needed. This starts with a better balance in the functions of qualification, socialization, and personalization we educate and train for. This also starts with investments in teachers and supervisors that train the professional of the future at the workplace.

Prerequisites for this change are learning and work environments that are inclusive and provide equal opportunities for all students and professionals to learn. Incentives and facilities for professionals' development (e.g. time and space) are conditional for change. Within these environments innovation, research and education are connected.

We illustrated our interpretation of the agora with examples from the University Medical Center in Utrecht that aim to connect innovation in care, research and education. Driven by our strategy outlined in The New Utrecht School we are realizing steps toward an agency of professionals, by training adaptive experts that can foster and nourish open and stimulating learning and work environments. As actors at the agora, we very much welcome further exchange and dialogue about how to improve health professions education in times of societal challenges.

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