

Reports of Focus Group Discussions:

Group C – The Role of the Teacher

Chair: Margaret Cox, *King's College, London*, mj.cox@kcl.ac.uk

Rapporteur: Steve Kennewell, *University of Wales Swansea*,
s.e.kennewell@swan.ac.uk

Participants: Janine Bowes (Australia), Roger Carlsen (USA), Ted Clark (Australia), Dianne Chambers (Australia), Harry Gankema (The Netherlands), Helene Godinet (France), Elizabeth Hartnell-Young (Australia), Tony Jones (Australia), Nancy Law (Hong Kong)

1. INTRODUCTION

Teachers' roles vary according to the educational system, the culture, the nature of the school and the age of their students. This diversity will be able to increase with the support of ICT.

The group's ideas similarly reflected a diversity of backgrounds and perspectives. We have identified some current trends in successful practice and combined these with our own values and visions for the future. Our ideas are not intended to be definitive in nature or exhaustive in their scope.

2. WHAT WILL BE THE CHARACTERISTICS OF TEACHING IN THE FUTURE?

If we are to consider the future role of the **teacher**, then it is clear that we need to set this in the context of the wider field of **teaching**, which may or may not involve the physical presence of a teacher. Through ICT, aspects of the role of teacher can be distributed in time, space and person leading to a transformation in the nature of teaching. The increased connectedness of individuals supports the formation of teams of people who contribute to a particular student's learning, and members of such teams can adopt different roles.

The original version of this chapter was revised: The copyright line was incorrect. This has been corrected. The Erratum to this chapter is available at DOI: [10.1007/978-0-387-35701-0_35](https://doi.org/10.1007/978-0-387-35701-0_35)

C. Dowling et al. (eds.), *Information and Communication Technology and the Teacher of the Future*
© IFIP International Federation for Information Processing 2003

One fundamental difference in the future will be the availability of an **enabling** ICT infrastructure appropriate to the chosen pedagogy. The context of the learner in terms of age, location, circumstances and individual learning style will determine the most appropriate mix of learning strategy and mode. It is most important that the needs of learners determine the uses of ICT rather than ICT developments determining the educational agenda.

Three scenarios have been developed to illustrate the diversity and variety of approaches that are enabled by the availability of ICT. These scenarios are not intended to be mutually exclusive but rather illustrate how the educational process can be adapted to suit the needs of learners and optimise the learning experience, using ICT as an enabler. The context of the learner is crucial to the selection of pedagogy for a given circumstance. These scenarios are written for the role of the future secondary teacher.

2.1 Scenario 1 – face to face/in person

There is a building for protection from the elements, open continually. It consists of flexible spaces. Students are teenagers and anyone else who wants to belong (commit) to this community. The staff includes many types of professionals. The community is confident, has a sense of purpose and looks out to the world. Learner-teacher relationships are many-to-many and one-to-one: teaching roles can be split and regrouped, and the boundary between learners and teachers is crossed. Communication in the community and with others is synchronous and asynchronous; learning objects are physical and digital. Learners and teachers plan/discuss/negotiate the use of resources (people and things). Learning outcomes benefit the community and the individuals (assessment is changed).

The teachers care for each other as much as they care for other learners. Digital records of activity and outcomes are stored and published in a knowledge management system. They plan the use of resources and the appropriate application of technology. They connect with other professionals and are willing to share knowledge with colleagues, students, and the community. They have all developed their core competencies together with specialist expertise and work in a way that complements the abilities of their fellow team members and students.

They have knowledge of learning theories and are able to identify adequate learning processes for individuals and groups. They participate in teams that design the technology infrastructure. They have access to an electronic learning environment, including information outside the learning community, communication inside the building, and knowledge databases with open access at any time for every member of the community.

2.2 Scenario 2 – blended learning/hybrid learning

The context is extended educational time and space, with a mixture of synchronous and asynchronous groupings. This can be face to face and/or at a distance; integrating electronic alternatives; involving a team of educators with access to online resources and local and international partners via an ICT network.

Teachers are part of a dynamic team that designs and facilitates learning (face to face or at a distance) integrating ICT for individual students, selecting appropriate resources and learning strategies. Teachers take on many roles and are active participants in the learning space. They communicate with other educators, with the community and with learners, to design individual pathways for learners. They are open, dynamic and flexible and are able to adapt each day, each moment, and for each child, taking into consideration the diversity of learners (culture, language, background, interests) and the range of resources available on the network. They initiate and sustain communication and relationships with all stakeholders in the learning process (parents, learners, other teachers, media, experts, education authorities etc.). They empower students as independent learners and champion learning in the community. They act as the Hub: the focal point to structure and stimulate learning. They collaborate, share, and disseminate learning strategies, materials, techniques, resources, etc. with their colleagues, both local and distant.

2.3 Scenario 3 – distributed “teacher”

(In this scenario, names are intentionally used to highlight the distributed nature of the various roles whilst retaining the importance of someone [Sika] maintaining a holistic view of the individual learner.)

Sika’s job is to maintain close network contact with 100 year 10 students studying a full curriculum in a cluster of four non-attendance schools. She knows each child’s learning and social requirements intimately and deals with each child individually. She does not teach students content directly, but organizes learning programs for each student using a range of technologies and pedagogical software agents. She is occasionally called upon to organize a group online discussion. Today Sika is organizing an online rehearsal involving four groups of students. The production group has just completed their virtual placement and the teacher is confident that the show this year will be a success as both the staff from MediaEntertainment and the children have consistently reported with enthusiasm their progress in the weekly virtual Karaoke Show and Tell. However, she is a bit worried about Yuki whose pedagogical agent has reported her apparent loss of

interest in the science project. Sika decides to contact Uba the Science coordinator via SMS to set up an extra tutorial for students working on similar projects. Before the rehearsal this afternoon, Sika has to meet with Shikiva and his parents who have just decided to join this distributed learning cluster because he has just been selected into the national swimming team. They need to discuss an appropriate program to take account of Shikiva's personal interest as well as his educational and social background.

3. CONCLUSIONS

The scenarios contain many common features, and highlight the key features of how the future teacher's role is supported by ICT. ICT adds complexity to the possibilities of teaching but it can also change the need for teacher control by supporting self directed learning and greater individualisation of programmes. Networks afford the sharing of ideas amongst teachers and growth in the sense of community, which provides a good model for students' learning.

Teachers need new competencies in ICT and in developing students' learning skills, but learners' access to a variety of learning sources – human and virtual – means that each individual teacher does not need all competencies. As learners have more choice about programmes, teachers need to gain their authority through evidence of pedagogical expertise. There will be a stage during which they need to challenge students' and parents' expectations of traditional teaching approaches.

They should balance the emphasis on pedagogy and on technology, making informed decisions on the resources to be deployed. They need to have time to fulfil their roles effectively, including managing the complexity in the task of teaching; this is an issue for leaders/decision makers to address.

Whilst there are changes in the roles of individuals involved in teaching, it could be argued that the characteristics of a good teacher of the future would encompass much of what we expect of a good teacher of the present day. In order to be successful, teachers or teaching teams in the future should consider and reflect on how ICT can modify, enhance or transform these traditional teacher roles. They may be required to:

- act as learning strategists who can identify pathways for individual learners;
- select appropriate resources, including sources of pedagogical expertise in subject specialisations;
- know how, when (and when not) to intervene;

- develop students' generic skills including learning how to be independent learners and contribute to their progressive understanding of subject content in the context of rich learning tasks;
- in relation to desired learning outcomes, design tasks, produce and select resources (including ICT where appropriate) and provide additional support, taking into account/according to learners' abilities and learning styles;
- motivate learners through demonstrating enthusiasm for learning and for the subject content involved;
- demonstrate and promote consistent values and attitudes;
- be open to innovation in pedagogy, take risks and continue to be life long learners;
- be closely connected within the team, and to learners, other colleagues and society.