

**Report to the 44<sup>th</sup> General Assembly  
FIG e-Working Week 2021, the Netherlands**

**FIG Commission 2 – Professional Education**

**Report of Activities 2019-2020**

**1. General**

Professional surveying education has strong traditions in face-to-face and active/practical learning supported by strong theoretical learning. A previous Commission 2 publication recognized that online learning was part of the future of surveying education in the excellent 2010 FIG Publication 46 *Enhancing Surveying Education through e-Learning*. While many of the key messages of this report still apply, we have experienced a fundamental change in professional education during COVID. Through necessity, this included a rapid transition to online learning that involved significant investments in online learning infrastructure and online learning materials. It is now generally accepted that the future for surveying education will involve ‘blended’ (or hybrid) learning which combines face-to-face and online learning.

The central challenge going forward is how to ‘blend’ the f2f and online modes of learning. Our experiences tell us that surveying students like the f2f and practical aspects of their education and these must be an important part of any blended learning approach. However, there are also significant benefits to online learning. Online learning provides the potential to learn anywhere and any time, and potentially allows students more choice in the design of their programs.

The theme of blended learning is also relevant to the concept of “life-long learning” and professional development is therefore relevant to Commission 2. This connection is discussed in a paper by the Commission 1 and 2 chairs as well as Stig Enemark and James Kavanagh presented at the 2020 FIG Working Week “*On ‘Blended’ learning and the benefits for surveying education, professional development and ‘life-long learning’*”. Commission 2 also has two key publications in 2021 (i) featured in the 2021 GIM International article by all FIG Commission chairs “*Key global and technology drivers impacting Surveying: Reflections by the FIG Commission Chairs*”, and (ii) an upcoming publication by David Mitchell in the Coordinates Magazine “*Surveying Education – Prospects and Challenges post COVID-19*”.

We also need to understand that students are very diverse in their learning and studying approaches. Younger learners who, while they are very competent with online approaches, vary enormously in how they prefer to learn. Some simply cannot cope with online learning, while others much prefer to study online. This is reflected in the work of WG2.3 which seeks to understand students learning and studying preferences.

The main focus of the Commission 2 workplan is to prepare an update of the FIG Publication 46 which has a working title of “*Enhancing Surveying Education through Effective Blended Learning*”. Our efforts focus on

three main areas and these are represented by the working groups: (i) WG2.1 - how academic networks can help knowledge sharing on blended learning and surveying education overall, (ii) WG 2.2 – hearing from teachers on best practices in blended learning and curriculum design, and (iii) WG2.3 – hearing from students - understanding student learning and studying preferences.

There were four Commission 2 sessions at the 2020 FIG Working Week that are relevant to this working group:

- TS03A: FIG Academic Forum on VGGT, VGGT and the UN Convention to Combat Desertification into the implementation of the Convention.
- TS01A: Blended learning and innovations in professional education
- TS02A- Innovation in Professional Education in Europe
- TS05A - Responsible Land Administration Teaching Essentials (Joint Comm 2 and 7).

During 2020, with the support of Claudia in the FIG Office, we have energised our communication through the Commission 2 website (<http://www.fig.net/organisation/comm/2/>) and social media: LinkedIn Commission 2 Group (<https://www.linkedin.com/groups/7404450/>), Facebook FIG Group (<https://www.facebook.com/internationalfederationofsurveyors>), FIG Twitter ([https://twitter.com/FIG\\_NEWS](https://twitter.com/FIG_NEWS)), FIG Instagram (<https://www.instagram.com/figsurveyors/?hl=en>).

## 2. Working Groups

### 2.1 WG 2.1 Developing academic networks for knowledge sharing

Working Group 2.1 aims to support regional academic networks share knowledge and experiences. WG2.1 will provide contributions to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* with WG2.1 discussing how regional academic networks can support knowledge sharing and capacity building using blended learning approaches.

#### Progress since the endorsement of Work Plan in FIGWW in Hanoi in April 2019

WG 2.1 organised and chaired one session within FIG WW 2019. Working Group 2.1 also organised and chaired one session in the FIG 2020 program - 02.1 - Regional Academic networks and CPD.

Preparations started for the activity of LALAN planned for the beginning of 2020 in Guatemala with funding from School for Land Administration Studies - SLAS (joint initiative of the Netherlands Kadaster and Faculty ITC) but due Covid 19 outbreak this was canceled.

Participation of the Chair of WG 2.1 Dimo Todorovski in Joint Commission 7 and Commission 2 annual meeting. Periodical communication between Chair Commission 2 and Chair WG 2.1 and FIG headquarters.

Organization of session for FIG WW 2021-online event in underway with a title: **02.1 - Regional Academic Networks: Lessons from COVID-19 for SDG Goal 4 (education)** 4 abstracts accepted and included in the programme of FIG 2021

## **2.2 WG 2.2 Innovative learning and teaching / "Curriculum on the Move"**

WG2.2 will contribute to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* by considering challenges and best practice in blended learning and professional education in general.

### **Progress since the endorsement of Work Plan in FIGWW in Hanoi in April 2019**

WG 2.2 organised and chaired one session within FIG WW 2019.

The Commission 2 sessions at the 2020 FIG Working Week relevant to this working group were:

- TS01A: Blended learning and innovations in professional education – with seven very good case study papers on blended learning as well as high level discussions.
- TS02A- Innovation in Professional Education in Europe – a very full session with eight papers on innovative approaches to surveying education.

Commission 2 ran an online workshop at the 2020 FIG Commission 7 Annual Meeting in October 2020 - **Session 2: Blended learning: lessons from our responses to COVID-19**. Moderated by David Mitchell, with Chethna Ben as the Rapporteur, this session focused on the lessons from moving learning and teaching online during COVID-19 responses. The workshop included the following presentations and discussion:

- Chethna Ben, University of South Pacific, University of South Pacific experience in online learning for students across many islands.
- David Mitchell, RMIT University, How are students learning and studying during COVID-19: Preliminary results of student questionnaire
- Dimo Todorovski, University of Twente, Blended learning: lessons from our experience regard response to Covid19; Faculty ITC, University of Twente, the Netherlands
- Kelly Lickley, RICS Online and Blended learning in RICS professional development
- Followed by a discussion

We are also pleased to say that a high level Commission 1 and Commission 2 paper “Blended Learning in Support of Life-long Learning for Surveyors” submitted to the 2020 Working Week was also published as the FIG Article of the Month for September.

## **2.3 WG 2.3 Joint Commission 1 and 2/YSN working group - Learning strategies and approaches in surveying education**

This is a joint FIG Commission 2 and FIG Young Surveyors Network project that is looking at the way students learn and study in the context of blended learning. Working group 2.3 will contribute to the final Commission 2 report *Enhancing Surveying Education through Effective Blended Learning* through considering the different approaches learners have in the context of blended learning. The aim of this questionnaire is to explore the learning and studying approach used by surveying students globally and better understand how these approaches differ across regions, age, religion and gender. This input will be informed by the questionnaire on learning styles and validation of these results in workshops at the Working Weeks in 2021 and 2022.

## Progress since the endorsement of Work Plan in FIGWW in Hanoi in April 2019

A literature review was completed in 2020, the questionnaire was designed and ethics approval gained during 2020. Note that in this context “surveying” means all the professional areas covered by FIG Commissions.

The questionnaire has been sent out through FIG networks and we currently have 190 responses, including from most regions of the world. Commission 2 will be presenting on these results at a workshop on blended learning at the 2021 Working Week for validation.

**Chethna Ben presented at the 5th Young Surveyors Conference:** Social Distancing Edition on May 9th, 2020. Her presentation was on the work of WG2.3 including preliminary results of the questionnaire.

### 3. FIG/FAO Academic Forum

A Letter of Agreement between FIG and FAO was in place for 2020. The general objective of this Letter of Agreement is to disseminate the “Guidelines”, *raise awareness, develop capacity, engage professional, academic and teaching institutions, and develop partnerships and networks between FAO Tenure staff and FIG surveyors as key land, natural and built environment professionals globally and regionally*, towards improved governance of tenure and support to the application of the “Guidelines”. Within the context of the FIG Work Plan, the FIG Council has a vision of a “modern and sustainable surveying profession in support of society, environment and economy by providing innovative reliable and best practice solutions to our rapidly changing and complex world, acting with integrity and confidence about the usefulness of surveying, and translating these words into action.”

The Academic Forum at the 2020 FIG Working Week, was jointly hosted by FAO and FIG and focused on **VGGT and the UN Convention to Combat Desertification into the implementation of the Convention:**

*Progress in supporting the application of the Guidelines, and opportunities to engage regional, sub-regional, academic and young surveyors’ networks to discuss and raise awareness on VGGT and UNCCD COP 14: how to integrate the VGGT into the implementation of the Convention and land degradation neutrality - land-based solutions, involving LA/LM instruments to combat climate change.*

### 4. Cooperation with other Commissions

Commission 1 is involved in Commission 2 activities related to life-long learning and professional development – in particular the questionnaire on student learning strategies and approaches. Joint Commission sessions at the 2020 FIG Working Week included (i) **TS05A - Responsible Land Administration Teaching Essentials (Commission 2 and 7) – with six papers presented**, and (ii) Professional education was a key theme in the Commission 5 session: **FIG AP CDN / UN GGIM AP / UN SCoG ETCB - Open Meeting** to seek comments from delegates interested in geodetic capacity development matters, operational, academic, scientific, commercial and leaders in geodetic surveying. Commission 2 also ran a workshop at the 2020 FIG Commission 7 Annual Meeting 20-22 October 2020.