Introducing Key Mathematical Concepts to Non-Traditional Students in the First Year Business Computer Applications Courses

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Abstract. In 2019, in response to the Texas Higher Education Coordinating Board (THECB) Field of Study (FOS) lower-division courses mandate (Education Code Chapter 61, Section 823) to develop FOS to facilitate student transfer, a freshman-level computer literacy course was developed for the College Business' incoming students. At first, this course was designed to exclusively address the THECB's required learning outcomes; however, for the course to be offered as a freshman-level course, the design had to be modified to also address university's freshman-seminar mathematics learning outcomes including key mathematical concepts and the application of appropriate quantitative tools to everyday experience with an emphasis on quantitative literacy in logic, patterns, and relationships. Furthermore, the course had to be designed to include strategies to enhance student academic success.

This paper describes the newly multifaceted course that integrates the THECB Field of Study computer literacy learning outcomes with the university's core curriculum freshman-seminar mathematics learning outcomes, and strategies to improve student success in college and for life.

Keywords: Business Computer Applications, Core Curriculum, Freshman-Seminar, Empirical and Quantitative Skills, Critical Thinking Skills, Student Success

1. Background

In July 2018, Texas Higher Education Coordinating Board (THECB) approved the Business Administration & Management Field of Study curriculum and mandated that by September 2019 all public 4-year institutions of higher education in the State of Texas include the Field of Study (FOS) courses as a part of the business curriculum for students seeking Bachelor of Business Administration (BBA) degree curriculum.

This requirement was based on the Business Field of Study Curriculum Advisory Committee's comprehensive review of lower-level division BBA degree requirements in part to ensure common coverage of business topics and full transferability of courses. The recommendation included 21 to 24 semester credit hours of courses in Economics, Mathematics, Accounting, and Computer Literacy (http://www.thecb.state.tx.us/DocID/PDF/12617.PDF).

This article describes the design and development of the Computer Literacy course for BBA degree programs offered in the College of Business at a comprehensive four-year university offering bachelor's and master's degree programs in the fourth-largest city in U.S.A.

This commuter university is accredited by the Southern Association of Colleges and Schools Commission on Colleges, and the College of Business is accredited by AACSB. The more than 14,000 diverse student body comprises of 60% female and 40% male; 46% full-time and 54% part-time students; 51% Hispanic, 20% Black, 14% White, 9% Asian or Pacific Islander, and 6% Others; and more than 70% are 30 years-old or younger (https://www.uhd.edu/about/Pages/about-quickfacts.aspx).

2. Introduction

Because of the wide usage of computers in businesses, the importance of computer literacy education was emphasized and supported in institutions of higher education across America, and most curricula included a required core course in computer literacy. Generally, the required core computer course covered topics such as computer hardware, system software, and application software. For more than three decades, the computer literacy course remained as an integral part of most degree programs.

However, in 2011, the Texas Coordinating Board (TCB) deliberated on the common core curriculum to, in part, ensure seamless transferability of the common core across the state. As a result, the TCB defined the new core requirements so that 36 of the 42 semester credit hours had to be chosen in eight foundation areas addressing six core curriculum objectives. The Six Core Curriculum Objectives were defined as:

1. Communication Skills:
   a. effective development, interpretation and expression of ideas through written, oral and visual communication;
2. Critical Thinking Skills:
   a. creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information;
3. Empirical and Quantitative Skills:
   a. the manipulation and analysis of numerical data or observable facts resulting in informed conclusions;
4. Teamwork:
   a. the ability to consider different points of view and to work effectively with others to support a shared purpose or goal;
5. Social Responsibility:
   a. intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities; and
6. Personal Responsibility:
   a. the ability to connect choices, actions and consequences to ethical decision-making.

- Per the Texas Education Code, §§61.821 - 61.832:

"Each institution of higher education that offers an undergraduate academic degree program shall design and implement a core curriculum, including specific courses composing the curriculum, of no less than 42 lower-division semester credit hours."

Furthermore, the below listed eight foundation areas addressing the above mentioned six core curriculum objectives were defined as:

1. Communication (6 SCH)
2. Mathematics (3 SCH)
3. Life and Physical Sciences (6 SCH)
4. Language, Philosophy, and Culture (3 SCH)
5. Creative Arts (3 SCH)
6. American History (6 SCH)
7. Government/Political Science (6 SCH)
8. Social and Behavioral Sciences (3 SCH)

The 9th Component Area Option represents (6 SCH) and includes courses that focus on one of the eight foundation areas.

In 2014, to adhere to the TCB's requirements, at this university, the General Education Core Curriculum was revised to 1) eliminate the computer literacy course from the common core, and 2) include 36 SCH common freshman- and sophomore-level courses and 6 SCH of freshman and sophomore seminar courses with the caveat that there would be several courses from various disciplines that students could choose from as an option for the 6 SCH. As a part of establishing parameters for the later 6 SCH, 8 threads, each associated with one of the foundation areas and their associated Learning Outcomes (LOs) were defined. For example, if a freshman- or sophomore-level seminar course was developed to belong to the Communication thread, then its course objectives, content, assignments, and learning outcomes had to address the Communication thread learning outcomes. Similarly, if a freshman- or sophomore-level seminar course was developed within the Mathematics thread, then its course objectives, content, assignments, and learning outcomes had to address the Mathematics thread learning outcomes.

To offer students opportunities to strengthen their knowledge in one of the 8 aforementioned foundation areas, the faculty from across the university developed courses within a thread associated with one of the eight foundation areas.

Recognizing that many of the incoming students did not possess the mastery of computer knowledge and computer application skills to succeed in their college courses and beyond, the authors of this article developed a freshman-level and a sophomore-level seminar course in the Communication thread. The freshman-level course titled *Communication in the Age of the Internet* focuses on fundamental principles of communication, the Internet, and digital technology tools to enhance communication skills in face-to-face and virtual environments; and the sophomore-level course titled *Going Virtual: Communication in Cyberspace* examines the culture of the virtual world and explores the tools and strategies that help enhance collaboration, communication and working relationships within that environment. These seminar courses were designed to cover computer literacy concepts and applications while satisfying the Communication thread's learning outcomes. In both seminar courses, students utilize technologies and tools for written, oral, and visual communication. Since fall 2014, these seminar courses have been offered regularly in fall, spring and summer sessions with a course student cap of 30.

In 2019, to comply with the Field of Study mandate from the THECB, the authors developed a Field of Study freshman-level seminar course titled *Freshman Seminar: Business Computer Information* Systems with major focus on computer literacy concepts and applications. Furthermore, to comply with the university's General Education Core requirements, the course was developed in the Mathematics thread of the university's freshman seminar courses and coverage of topics and the learning outcomes of the thread were embedded in the course. The design and implementation of this course follows.

3. THECB Business Field of Study Courses

The Texas higher education 60x30TX strategic plan describes pathways for all students in Texas to complete their education and join the workforce with a common and recognizable set of essential skills that enhance their success both during their schooling and thereafter (http://reportcenter.highered.texas.gov/agency-publication/miscellaneous/implementing-fields-of-study-guide/).

As a part of implementation of this strategic plan, the THECB identified the following 24 SCH of Field of Study curriculum for all Business Administration and Management baccalaureate degree programs, and required that the following courses be fully and seamlessly transferable among all Texas public institutions of higher education.

1. Mathematics for Business & Social Sciences (3SCH)
2. Principles of Macroeconomics (3SCH)
3. Principles of Microeconomics (3SCH)
4. Principles of Financial Accounting (3SCH)
5. Principles of Managerial Accounting (3SCH)
6. Business Principles (3SCH)
7. Business Statistics (3SCH)
8. Business Computer Applications (3SCH)

4. THECB Business Field of Study Course - Business Computer Applications And Learning Outcomes

In addition, THECB prescribed the course descriptions and numerated learning outcomes for each of the above courses. For example, for the Business Computer Applications course, THECB provided the following course description:

"Business Computer Applications - Business Field of Study Course

Business Computer Applications introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet."

To meet the THECB's Field of Study learning outcomes, both the approved course description and the following THECB Learning Outcomes (TLOs) were implemented in the course.

TLO#1. Describe the fundamentals of information technology concepts – hardware, software, security, and privacy.

TLO#2. Demonstrate proper file management techniques to manipulate electronic files and folders in local, network to prepare students and online environments.

TLO#3. Create business documents with word processing software using spelling and grammar check, format and layout, tables, citations, graphics, and mail merge.

TLO#4. Create business documents and analyze data with spreadsheet software using (1) tables, sorting, filtering, charts and graphics, pivot tables, macros; (2) statistical, financial, logical and look-up functions and formulas; and (3) add-ins.

TLO#5. Create business multimedia presentations with presentation software using templates, lists, groups, themes, colors, clip art, pictures, tables, transitions, animation, video, charts, and views.

TLO#6. Create databases and manage data with database software using tables, fields, relationships, indexes, keys, views, queries, forms, reports, and import/export functions.

TLO#7. Integrate business software applications.

TLO#8. Use web-based technologies to conduct ethical business research.

TLO#9. Use "goal seeking" and "what-if analysis" to solve problems and make adjustments and recommendations in a business environment.

5. General Education Core - Freshman Seminar (Mathematics) - CLOs

Since the *Business Computer Applications* course was developed within the freshman-level seminar Mathematics thread, the following Mathematics thread's course description and learning outcomes were also embedded in the course.

5.1 General Education Core - Mathematics Thread Course Description

The university's General Education Committee requires that the following statements be included in the course description of seminar courses in the Mathematics thread.

"Within the context of the discipline, this course introduces students to key mathematical concepts and the application of appropriate quantitative tools to everyday experience. It addresses quantitative literacy in logic, patterns, and relationships. Strategies for academic success are practiced within the context of this course."

5.2 General Education Core - Mathematics Thread Learning Outcomes

In addition to the abovementioned prescribed course description, the General Education Committee has identified the following as Core Learning Outcome for courses in the Mathematics thread.

CLO#1. Communicate mathematical information verbally, numerically, graphically, and symbolically.

CLO#2. Use appropriate mathematical techniques to model situations from a variety of settings, including real-world applications in generalized mathematical forms.

CLO#3. Interpret mathematical models, such as formulas, graphs, tables, and schematics, and draw inferences from them.

CLO#4. Discern relationships and patterns in quantitative data to arrive at informed conclusions.

CLO#5. Utilize appropriate technology to enhance mathematical thinking and understanding, to solve mathematical problems, and to judge the reasonableness of the results.

CLO#6. Research and define academic and career goals within the discipline and develop learning strategies to support academic success and attainment of academic and career goals.

6. Freshman Seminar: Business Computer Information Systems

6.1 Course Development

As the foundation, the authors utilized the THECB's *Business Computer Applications* course descriptions and learning outcomes to develop the *Freshman Seminar: Business Computer Information Systems* course. This course introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The information technology concepts presented in this course include computer hardware, software, file management, computer network, Internet and telecommunication, computer security and privacy, and ethical business research principles and guidelines. In addition, the course focuses on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the Internet. (http://www.thecb.state.tx.us/institutional-resources-programs/public-universities-health-related-institutions/transfer-resources/field-of-study-curricula/).

Starting fall 2020, in addition to the aforementioned *Communication in the Age of the Internet* and *Going Virtual: Communication in Cyberspace* seminar courses, three sections of the newly developed *Freshman Seminar: Business Computer Information Systems* seminar course will be offered to all students and any student who does not transfer credit hours for the course from other institutions and plans to major in one of the College of Business degree programs will be required to complete the newly developed course successfully (see Appendix 2).

6.2 Course Topics

The *Freshman Seminar: Business Computer Information Systems* seminar course is an introductory computer concepts and business productivity tools course that covers introduction to computer hardware, software, Internet, computer network, telecommunication, computer security and privacy, business research principles, as well as business productivity software applications utilizing Office 365. Furthermore, Word is utilized to ready students to generate research papers; Excel to learn Key mathematical techniques while using "goal seeking" and "what-if analysis"; Access to create databases and manage data; and PowerPoint to depict data and trends visually and to create business multimedia presentations.

6.3 Course Description

The below course description combines the THECB and the Freshman Seminar - Mathematics thread's course descriptions.

> "This course introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the Internet. In addition, within the context of the discipline, this course introduces students to key mathematical concepts and the application of appropriate quantitative tools to everyday experience. It addresses quantitative literacy in logic, patterns, and relationships. Strategies for academic success are practiced within the context of this course**."**

6.4 Course Learning Outcomes

The below listed course learning outcomes weaves the THECB Learning Outcomes (TLO) and the Freshman Seminar - Mathematics thread's Core Learning Outcomes (CLO) .

Upon completion of this course students will be able to:

TLO#1. Describe the fundamentals of information technology concepts – hardware, software, security, and privacy.

TLO#2. Demonstrate proper file management techniques to manipulate electronic files and folders in local, network, and online environments.

TLO#3. Create business documents with word processing software using spelling and grammar check, format and layout, tables, citations, graphics, and mail merge to generate a report on academic and career goals (CLO#6).

TLO#4. Create business documents and analyze data with spreadsheet software using (1) tables, sorting, filtering, charts and graphics, pivot tables, macros; (2) statistical, financial, logical and look-up functions and formulas; and (3) add-ins.

TLO#5 Create business multimedia presentations with presentation software using templates, lists, groups, themes, colors, clip art, pictures, tables, transitions animation, video, charts, and views to communicate mathematical information verbally, numerically, graphically, and symbolically (CLO#1).

TLO#6. Create databases and manage data with database software using tables, fields, relationships, indexes, keys, views, queries, forms, reports, and import/export functions.

TLO#7. Use appropriate mathematical techniques and integrate business software applications to model situations from a variety of settings, including real -world applications in generalized mathematical forms (CLO#2).

TLO#8. Use web-based technologies to conduct ethical business research, to define academic and career goals within the discipline and develop learning strategies to support academic success and attainment of academic and career goals (CLO#6).

TLO# 9. Use "goal seeking" and "what-if analysis" to interpret mathematical models, such as formulas, graphs, tables, and schematics, and draw inferences from them (CLO#3), to enhance mathematical thinking and understanding, to solve mathematical problems, to discern relationships and patterns in quantitative data to arrive at informed conclusions and to judge the reasonableness of the results CLOs#4 & CLO#5), and make adjustments/recommendations in a business environment.

6.5 Course Contents

In order to ready students for upcoming major assignments, the course is designed in a two-prong approach in such a way that during the semester, computer concepts and Office 365 are covered in parallel. Below is an example of the course contents and coverage of course materials during a 15-week long semester after the first week of introduction and housekeeping tasks.

During weeks two through five, while students learn about information technology concepts and ethical business research principals and guidelines, they also learn word processing topics such as document format and layout, footnotes and endnotes, tables and citations, and graphics. So, while students learn concepts of information technology and how to use technology to conduct ethical business research, they also learn how to formulate their findings and generate a research paper utilizing Word. In addition, during this period, students engage in class discussions and Blogs on topics related to information technology and ethical research principles; they are also required to complete three quizzes, one test, several Word simulation training modules, and three major Word homework assignments.

Then, during the next four weeks of the semester, the focus is shifted to coverage of key mathematical concepts and Excel, also in parallel. Topics covered in Excel include statistical, financial, logical and look-up functions and formulas; graphs and charts; sorting and filtering data;

what-if analysis; and Pivot tables. So, while students learn about concept of mathematical model and relationships and patterns in quantitative data, they utilize Excel to further appreciate mathematical models, enhance their mathematical thinking and understanding, to solve mathematical problems, and to assess the results. In addition to a tests, three quizzes, several Excel simulation training modules, and four major Excel homework assignments; students also engage in a series of class discussions based on a personal finance scenario requiring them utilizing Excel mathematical formulas, functions and models to conduct what-if-analysis, generate charts and graphs, and practice critical thinking skills. Although the scenario is based on a fictitious student's financial plan, students will be encouraged to use the spreadsheet as a template for their own personal financial planning.

The next two weeks are spent on learning visual communication and utilizing PowerPoint, also in parallel, to showcase their research findings and illustrate their understanding of mathematical modeling. Although during this period, there are no quizzes or tests, students are required to complete as series of PowerPoint simulation training modules, and complete two major PowerPoint assignments.

The next three weeks of the semester focuses on data, database, and data analytics concepts using Access, also in parallel. Students are required to complete a series of Access simulation training modules to learn how to create Access database tables, populate tables, and generate reports and queries.

The last week is dedicated to course review, and the semester ends with a major Office integration assignment and a comprehensive final exam.

6.6 Course Textbook

After reviewing various books from different publisher, considering a number of factors including immediate availability of the ebook and MindTap, comprehensive coverage of information technology concepts and Office 365, ease of access and use of MindTap and Skills Assessment Manager (SAM), students' personal learning experience by combining student learning tools such as readings, multimedia, activities, and assessments, cost, and Cengage's commitment to timely instructor training and customer support, the following eTextbook and digital learning platforms was selected for this course.

MindTap for Carey/Pinard/Shaffer/Shellman/Vodnik's *The New Perspectives* Collection, Microsoft® Office 365® & Office 2019, 1 term Instant Access, 1st Edition, Cengage publishing company, ISBN-10: 0-357-02620-9 and ISBN-13: 978-0-357-02620-5

6.7 Course Web Site

To complement the course contents and enhance learning, a Blackboard (BB) course site that includes links to orientation to BB course site, course information, syllabus, semester schedule, calendar, discussions, Blogs, messages, notifications, quizzes, tests, and a link to Cengage's MindTap and SAM contents was created. Cengage's test bank was used to create chapter self-tests, quizzes, and tests in the BB course site. Discussions, Blogs and other assignments were developed and uploaded to the BB course site (see Appendix 1). This populated BB master course web site then would be copied to create course web sites for each course section.

In addition to the BB master course web site, a MindTap master course was also created and linked to the BB master course site. The MindTap link within the BB course would seamlessly transfers students to Cengage's course contents where students can read and/or listen to information technology concepts, increase or decrease font size and/or change sound volume, highlight and/or add notes, print the content, watch short videos with or without sound and/or transcripts, inline personal or shared notes or file downloads, followed by a series of critical thinking assignments, key words, summary, self-tests, and quizzes.

The SAM component of the MindTap encompasses Office 365 including SAM Textbook Projects which provides text content that students can choose to read or listen to, increase or decrease font size and/or adjust sound volume, book mark, highlight, and edit. Also, SAM contains hands-on simulation exercises that students can complete in one of the three modes of learning – Observe, Practice, and Apply. Furthermore, SAM contains graded assignments and capstone projects for each of the applications.

When creating the MindTap master course, course concept topics, Office contents, simulations training modules and Office homework assignments were selected, scheduled, and assigned for each application. The resultant MindTap master course would also be copied for each course section and linked to individual BB courses accordingly.

6.8 Course Grading Scheme

The following is the breakdown of semester grade for the course. This semester grade scheme is in accordance with the Freshman Seminar –Mathematics thread grading guidelines and was approved by the university's General Education Committee.

1	Office Homework Assignments	150 Points
2	Visual Communication Assignment	100 Points
3	Empirical & Quantitative Reasoning Assignment	100 Points
4	Discussions and Blogs	200 Points
5	Quizzes (Proctored)	150 Points
6	Tests (Proctored)	100 Points
7	Final (Proctored)	100 Points
8	Attendance and Class Participation	100 Points
	Total	**1000 Points**

7. Conclusion

Three sections of the newly developed *Freshman Seminar: Business Computer Information Systems* course will be offered in fall 2020. Although these sections were originally scheduled for Face-to-Face classroom meetings, because of the COVID-19, they will be taught in a synchronized mode via Zoom on the previously scheduled days and times.

To ensure uniform coverage of the course materials, as mentioned earlier, each section will have a course web site that is copied from the BB and MindTap master course sites. A faculty coordinates activities for all sections by copying and testing each section's web sites, conducting training for other faculty teaching the course, answering questions, resolving problems, and updating sites as needed. The authors plan to conduct two short surveys to assess students' information technology knowledge and Office skills and update the course and its contents accordingly.

It is noteworthy to state that in addition to offering information technology learning experience, this course also provides students a variety of opportunities to learn about the university, university resources, career paths, and career planning. In fact, the *Freshman Seminar: Business Computer Information Systems* course provides the incoming freshman a holistic and strong foundation to achieve success both during their studies and thereafter.

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8. Appendices

8.1 Appendix 1
Tentative Course Outline

Week	Topic	Related Assignments
1	• Introduction	• Discussions Assignment 1: Introduction
2	• Information technology concepts – Computer hardware, software, and file management. • Word chapter 1 – Introduction, document format and layout	• Discussions Assignment 2: Academic and career goals
3	• Information technology concepts – Computer network, Internet, and telecommunication. • Strategies for academic and career success • Word chapter 2 – Footnotes and endnotes	• Quiz 1: Computer hardware, software, and file management. • Discussions Assignment 3: Strategies for academic and career success • Word Assignment 1
4	• Information technology concepts – Computer security and privacy. • Word chapter 3 – Tables and citations	• Quiz 2: Computer network, Internet and telecommunication. • Blogs Assignment 1: Internet - Computer security and privacy • Word assignment 2

5	• Ethical business research principles and guidelines • Word chapter 4 – Graphics and mail merge	• Quiz 3: Computer security and privacy. • Blogs Assignment 2: Ethical business research. • Word Assignment 3
6	• Key mathematical techniques to model real world situations. • Excel chapter 1 – Introduction, statistical, financial, logical and look-up functions and formulas	• Test 1: Information technology concepts – hardware, software, network, security, and privacy. • Research paper on strategies to support academic and career goals
7	• Mathematical models using Excel graphs and charts. • Excel chapter 2 – Graphs and charts	• Excel Assignment 1 - Statistical, financial, logical and look-up functions and formulas
8	• Relationships and patterns in quantitative data. • Excel chapter 3 - Excel what-if analysis, sorting, and filtering	• Discussions Assignment 4 (Analysis of Excel assignment 1) • Excel assignment 2 - Mathematical models using Excel graphs and charts
9	• Utilizing Excel to enhance mathematical thinking and understanding, to solve mathematical problems, and to judge the reasonableness of the results • Excel chapter 4 – Excel what-if analysis, and Pivot tables, macros, and add-ins.	Discussions Assignment 5 (Analysis of Excel assignment 2) • Excel Assignment 3 - Relationships and patterns in quantitative data
10	• Visual Communication • PowerPoint chapters 1 and 2 - Introduction, templates, lists, groups, themes, and colors	• Discussions Assignment 6 (Analysis of Excel assignment 3) • Excel Assignment 4 - What-if analysis, sorting, filtering, Pivot tables, macros, and add-ins
11	• Visual Communication • PowerPoint chapters 3 and 4 – clip art, pictures, tables, transitions, animation, video, charts, and views.	• Empirical & Quantitative Reasoning Assignment – Research paper on Identity Theft describing relationships and patterns in Identity Theft quantitative data • PowerPoint Assignment 1
12	• Access chapter 1 – Introduction, tables, and fields	• PowerPoint Assignment 2

13	• Access chapter 2 - Relationships, indexes, keys, and views	• Visual Communication Assignment – PowerPoint presentation of the Empirical & Quantitative Reasoning Assignment (above), embedding Excel spreadsheet, graphs and charts • Access Assignment 1
14	• Access chapter 3 - queries, forms, reports, and import/export functions	• Office Integration Assignment
15	Review	
16	Final Exam	

8.2 Appendix 2
Course Comparison Table

Course Comparison Table			
Course Number	UHD 1301	UHD 2301	UHD 1302
Course Name	Communication in the Age of the Internet	Going Virtual: Communication in Cyberspace	Business Computer Information Systems
University Seminar Thread	Communication	Communication	Mathematics
Audience	Entering Freshmen	Sophomore standing or Transfer Students	Freshman and transfer students -- planning to major in Business courses
Computer Skills	Word, Excel, PowerPoint, Internet	Word, Excel, PowerPoint, Internet	Word, Excel, PowerPoint, Access, Internet, Mathematical Techniques and Integrating software for modeling business situations
Course Format	Face-to-face; Hybrid; and Face-to-face and hybrid (synchronized mode via Zoom because of Covid-19)	Online; Face-to-face; Hybrid; and Face-to-face and hybrid (synchronized mode via Zoom because of Covid-19)	Face-to-Face and Face-to-Face (synchronized mode via Zoom because of Covid-19)