

Inquiry-based hybrid learning for first-year law students: a case study on generic skills, self-efficacy and sense of belonging

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Abstract

This study explores the development of law students' generic skills in inquiry-based learning, as well as the interrelations between generic skills, self-efficacy beliefs and sense of belonging. The article also examines the association between students' mode of attendance and their experiences, comparing those studying law onsite and online. The data (N=64) were collected through a survey from a hybrid first-year law course in the University of Eastern Finland Law School, and analysed using factor analysis and qualitative content analysis. Students' scores on learning generic skills, self-efficacy beliefs and sense of belonging were high. All generic skills studied – critical thinking, collaboration, communication, and self-regulation – correlated positively to each other. Students participating in teaching onsite had higher scores on sense of belonging compared to the online students. Students' experiences of learning generic skills or self-efficacy beliefs did not differ by their mode of attendance. Several aspects of inquiry-based learning were considered useful for developing generic skills, including teamwork, research-oriented activities and interaction. The results imply that inquiry-based learning is an effective way to support law students' generic skills, already during first-year studies. With careful pedagogical implementation, the learning experience may be positive even for online students. However, their sense of belonging requires specific attention.

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Keywords: inquiry-based learning, hybrid teaching, generic skills, sense of belonging, self-efficacy

Introduction

Rationale of the study

Discussion on the fundamental goals and practices of higher education has been revitalised by the emergence of generative artificial intelligence. This also applies to law schools: how to support law students in developing knowledge and skills, while keeping up with the changing demands of AI-assisted work practices?

In their recent scoping review, Lorteau and Sarro have suggested that AI should complement rather than replace critical thinking exercises in legal education, as AI seems to pose a threat to cultivating students' independent critical thinking skills. In addition, the use of AI tools may include risks in terms of the law students' capacity to relate to clients.¹ In a similar vein, Farber has argued that AI integration reinforces 'the need for human expertise in teaching essential skills such as ethical judgment, critical thinking and interpersonal communication'. A balanced integration of AI tools with experiential learning presents a way forward, without sacrificing the distinctively human capabilities of future lawyers.²

This paper contributes to the discussion on how to develop law students' essential skills, guaranteeing their relevance in the AI era. Instead of directly tackling AI-assisted pedagogy, we present a case study on one specific pedagogical model – inquiry-based learning – from the perspective of first-year law students' critical thinking and other generic skills. Our data were collected

¹ Steve Lorteau and Douglas Sarro, 'Artificial Intelligence in Legal Education: A Scoping Review' (2026) 60 *The Law Teacher* 138, 152–153.

² Shai Farber, 'Back to the Roots: Rethinking Legal Education in the Age of Artificial Intelligence' (2026) 60 *The Law Teacher* 163, 174–180.

from a hybrid³ second-semester law course at a Finnish law school. Before defining our research questions, we will next discuss the basics of inquiry-based learning.

Inquiry-based learning in legal education

Pedagogical models are theory-based frameworks of learning and teaching, helping teachers to identify the stages of the student's learning process and to plan the pedagogical process.⁴ Scholarship on legal education includes articles on various pedagogical models, often represented as innovations or developments. For example, there are texts on simulations⁵, flipped classroom⁶, problem-based learning (PBL)⁷ and design pedagogies⁸. In comparison with, for example, PBL and flipped learning, there is relatively little research on inquiry-based learning in law.⁹

Inquiry-based learning (IBL) is a pedagogical model emphasising the students' active role in a process of constructing knowledge and new understanding, driven by questions or problems and allowing the students to take increasing

³ By 'hybrid course' we refer to a course where students may attend classes onsite or online, and when working in small groups between classes, some meet face-to-face while others collaborate remotely using online tools. On the varying definitions of hybrid teaching, see Mark Bedoya Ulla and William Franco, 'Hybrid teaching: Conceptualization through practice for the post COVID-19 pandemic education' (2022) 7 *Frontiers in Education* <<https://www.frontiersin.org/journals/education/articles/10.3389/educ.2022.924594>> accessed 19 January 2026.

⁴ Patricia Alejandra Behar, 'Constructing Pedagogical Models for E-Learning' (2011) 4 *International Journal of Advanced Corporate Learning* 16, 18.

⁵ Ben Waters, "'A Part to Play": The Value of Role-Play Simulation in Undergraduate Legal Education' (2016) 50 *The Law Teacher* 172.

⁶ Marcela Castro, 'Flipped Classroom in Legal Education: Achievements and Challenges of Innovating the Teaching of a Basic Law Course' (2020) 6 *International Journal of Learning and Teaching* 119.

⁷ Richard Grimes, 'Delivering Legal Education through an Integrated Problem-Based Learning Model – the Nuts and Bolts' (2014) 21 *International Journal of Clinical Legal Education* 228.

⁸ Dan Jackson, 'Human-Centered Legal Tech: Integrating Design in Legal Education' (2016) 50 *The Law Teacher* 82.

⁹ For example, when searching within *The Law Teacher* journal, keyword 'problem-based learning' produces 129 results and keyword 'flipped' produces 57 results, whereas keyword 'inquiry-based learning' produces 10 results and keyword 'inquiry learning' produces 6 results. The *Elgar Concise Encyclopedia of Legal Education* (2025) contains entries on problem-based learning, moot and clinical legal education, whereas inquiry-based learning is not present in the Index.

responsibility for their learning.¹⁰ It is a form of active learning alongside, for example, collaborative learning, cooperative learning or experiential learning. The concept of active learning is itself broad and vague. According to one definition, ‘activating instructional methods are student-centered and can therefore include any teaching method that gets students to do something, either behaviorally, cognitively, or socially’.¹¹

The relationship between problem-based learning and inquiry-based learning has been interpreted in different ways. Some authors see PBL as one example or element of IBL.¹² In some resources, IBL and PBL are listed separately, as two distinct instructional models.¹³ Simple comparison is difficult as both PBL and IBL have received different implementations.¹⁴ For the purposes of this article, the constitutive element of IBL is the five-stage research process discussed below, allowing students to make fairly autonomous research choices, whereas a typical PBL process has a stronger orientation towards predetermined contents.¹⁵

In 2015, Sylvester attributed the ‘limited development of IBL in law’ to resource implications as it requires more contact time and the staff to adopt a new role as facilitator in the classroom. She recognised a shared belief within legal education that the students first need to ‘build a comprehensive body of discipline knowledge before they can apply [IBL] effectively’, restricting the systematic use of inquiry-based learning. According to her, inquiry-based learning could play an important role in law curricula, especially in developing

¹⁰ Rachel Spronken-Smith and Rebecca Walker, ‘Can inquiry-based learning strengthen the links between teaching and disciplinary research?’ (2010) 35 *Studies in Higher Education* 723, 726.

¹¹ Anastassis Kozanitis and Lucian Nenciovici, ‘Effect of active learning versus traditional lecturing on the learning achievement of college students in humanities and social sciences: a meta-analysis’ (2023) 86 *Higher Education* 1377, 1379. See also Susanna Hartikainen, *Active Learning in Engineering Higher Education: Bridging Conceptual Perspectives and Student Learning Processes* (Tampere University 2026) 67.

¹² Kozanitis and Nenciovici (n 11) 1379; Jonny Hall, ‘An Integrated Law Curriculum: Balancing Learning Experiences to Achieve a Range of Learning Outcomes’ (2018) 5 *Journal of International and Comparative Law* 71, 81.

¹³ See e.g. Tampere University Teaching and Learning Centre, *Pedagogical Models and Approaches* < <https://sites.tuni.fi/tlc-en/basics-of-teaching/pedagogical-models-and-approaches/> > accessed 23 June 2026.

¹⁴ Michael Prince, ‘Does Active Learning Work? A Review of the Research’ (2004) 93 *Journal of Engineering Education* 223; Spronken-Smith and Walker (n 10), 726.

¹⁵ Spronken-Smith and Walker (n 10) 730.

lifelong learning skills and analytical skills, motivating students, and encouraging deep learning.¹⁶

In the UK, Hall has discussed a law curriculum which integrates experiential and inquiry-based learning with traditional forms of instruction, advocating ‘a central place for experiential and inquiry-based learning’ in legal study. He highlighted its potential to foster students’ self-directed learning, understanding of legal knowledge construction, and awareness of law in its context. Hall recognised elements of inquiry-based learning in traditional legal learning methods, such as mootings and simulated client interviewing. He recommended systematic integration of collaborative inquiry-based learning to the legal curriculum, starting with first-year students.¹⁷

At Adelaide Law School, a first-year public law course was reformed in the 2010s with a combination of flipped classroom, continuous assessment and inquiry learning experience. Students worked in teams to produce a law reform submission. The IBL approach improved their research and writing skills and strengthened student connections, enhancing their sense of belonging to the law school. The reform led to higher student satisfaction and better performance.¹⁸ Carpenter, Koch and Stubbs emphasise the relevance of inquiry-based learning for all student cohorts, including first-year students. They remind teachers of the workload involved in major course renovations, suggesting the possibility of small-scale changes.¹⁹ In addition, they describe the online transition of the course dictated by COVID-19 and express reservations about implementing inquiry learning fully online, as it requires special supports and safeguards.²⁰

In Germany, Broemel and Muthorst recognised inquiry-based learning as a valuable addition to legal education. It promotes the students’ understanding of the legal working method, sensitises them to the interconnections of problems within the legal system, requires a reflected approach to legal

¹⁶ Cath Sylvester, ‘More questions than answers? A review of the effectiveness of inquiry based learning in higher education’ (2015) 10 *The Journal of Commonwealth Law and Legal Education* 21.

¹⁷ Hall (n 12) 76, 83–85, 87–91 and 107.

¹⁸ Eamonn Carpenter, Cornelia Koch and Matthew Stubbs, ‘Really Engages Students’: Flipped and Inquiry Learning in Law in the 21st Century’ (2022) 8 *The Canadian Journal of Comparative and Contemporary Law* 38, 39, 52–53 and 57–61.

¹⁹ Carpenter, Koch and Stubbs (n 18) 61–62 and 67.

²⁰ *ibid* 65–66.

argumentation and encourages problem-based reasoning. In particular, Broemel and Muthorst discuss the opportunities to strengthen inquiry-based aspects of seminar courses and internships. According to them, inquiry-based learning would be most suitable in the final phase of the legal studies, due to the advanced status of the students.²¹

Overall, research on inquiry-based learning in law reports positive learning outcomes and educational potential. However, more empirical studies are needed to examine its effectiveness in different contexts, focusing on specific skills with reliable instruments. As the scholarship contains different views on the applicability of IBL in first-year law studies and doubts about its feasibility online, further research on these contextual issues is warranted.

Aim, research questions and methods

This paper presents an empirical study on inquiry-based learning in a hybrid first-year law course at a Finnish law school. Our general research aim is to analyse the potential of inquiry-based learning in first-year law studies. The rationale of this aim lies in the challenges posed to higher education by AI and in the relatively scarce research on inquiry-based learning in law. As our case study focuses on a hybrid course, the post-pandemic need for providing quality learning in flexible and versatile modes adds to the relevance of our research.

The research aim is operationalised into four specific research questions, firstly, by limiting our study into the development of four generic skills: critical thinking, collaboration, communication, and self-regulation skills. They are essential for higher education studies and for effective performance in the workplace.²² For law students, they are crucial not only for mastering complex legal content and engaging in legal reasoning, but also for co-operating in team-based legal environments, articulating arguments clearly, and managing

²¹ Roland Broemel and Olaf Muthorst, 'Inquiry-based learning in legal studies' in Harald A. Mieg (ed), *Inquiry-Based Learning – Undergraduate Research: The German Multidisciplinary Experience* (Springer 2019) 301, 305 and 308.

²² Dirk Van Damme and Doris Zahner (eds), *Does Higher Education Teach Students to Think Critically?* (OECD Publishing 2022); Heidi Hyytinen, Tarja Tuononen and Anne Haarala-Muhonen, 'Learning Profiles and Their Relation to the Experiences of Learning Generic Skills at the End of the First Year of University Study' (2024) 8 *Frontiers in education* <<https://doi.org/10.3389/feduc.2023.1330898>> accessed 20 January 2026.

academic and professional responsibilities.²³ These skills are also directly linked to previous research on AI and IBL in legal education. We will study both the development of generic skills in IBL and the law students' perceptions on the aspects of IBL which support learning generic skills.

Secondly, in addition to generic skills, we examine law students' self-efficacy beliefs and sense of belonging in a hybrid IBL course. As there have been concerns about applying IBL in the early stages of legal studies, the analysis of self-efficacy beliefs deepens our understanding of first-year inquiry learning. The students' sense of belonging, in turn, is relevant as it has been considered a potential benefit of inquiry-based learning and as the hybrid setting poses specific challenges for it. Generic skills, sense of belonging, and self-efficacy beliefs have been prominent concepts in higher education for the past decades, including research on legal education.²⁴ However, there is a lack of empirical research examining the interrelationship between these three aspects in higher education. Consequently, further research is needed to explore this topic, also in the context of legal education.

Thirdly, as our case study focuses on a hybrid course, we are able to compare the learning experiences of onsite and online students. After the pandemic, higher education has increasingly shifted to remote learning.²⁵ As a consequence, also law schools face growing expectations for flexible, hybrid or online teaching. The learning environment and teaching practices play an

²³ Laura Drennan and Gini Keyser, 'Facilitating Skills Transfer: A Collaborative Writing Centre Intervention for Undergraduate Law Students' (2022) 56 *Journal for Language Teaching* 1; Anne Haarala-Muhonen, Heidi Hyytinen, Tarja Tuononen and Sakari Melander, 'Law Students' Descriptions of Legal Reasoning' (2022) 56 *The Law Teacher* 471.

²⁴ See eg Stephen Nathanson, 'The Role of Problem Solving in Legal Education' (1989) 39 *Journal of Legal Education* 167; Yvonne Skipper and Michael Fay, 'The Relationship Between the Sense of Belonging, Mental Wellbeing and Stress in Students of Law and Psychology in an English University' (2023) 4 *European Journal of Legal Education* 5; Dan Uehara, Sehoya Cotner, Malcolm Langford, Nasjida Noorestaney and Alva Kjensli, 'Do I Belong in Law School? The Role of Academic and Social Climate' (2024) <<https://ssrn.com/abstract=4746818>> accessed 19 January 2026.

²⁵ Liisa Myrsky, Veera Kallunki, Nina Katajavuori, Saara Repo, Tarja Tuononen, Henrika Anttila, Päivi Kinnunen, Anne Haarala-Muhonen and Eeva Pyörälä, 'COVID-19 Accelerating Academic Teachers' Digital Competence in Distance Teaching' (2022) 7 *Frontiers in education* <<https://doi.org/10.3389/feduc.2022.770094>> accessed 18 June 2025.

important role in the development of generic skills.²⁶ Thus, to design better educational practices for all students it is important to investigate how participation in face-to-face or remote learning is associated with students' generic skills, sense of belonging, and self-efficacy.

Overall, the study addresses four research questions:

RQ1. How well do law students' generic skills (critical thinking, collaboration, communication, and self-regulation skills) develop through inquiry-based learning?

RQ2. What are the interrelations between experiences of learning generic skills, self-efficacy beliefs and sense of belonging?

RQ3. How is attending law studies onsite or online related to the experiences of learning generic skills, self-efficacy beliefs and sense of belonging?

RQ4. Which aspects of inquiry-based learning are experienced by the law students as supportive of learning generic skills?

Our analysis is based on a survey of the participants of one first-year law course. Thus, we do not aim at generalisable claims but instead at nuanced interpretation and evaluation of the learning process of the course attendants. To provide a meaningful, in-depth analysis of our case, we combine quantitative factor analysis (RQ1–RQ3) with qualitative content analysis (RQ4). Mixed methods allow us to discuss quantitative results from the perspective of students' experiences and to reflect on the interplay of various elements of inquiry-based hybrid learning.²⁷

On the whole, the relevance of this study rests on the idea that in making pedagogical choices to support law students' critical thinking and other generic

²⁶ Anne Virtanen and Päivi Tynjälä, 'Factors Explaining the Learning of Generic Skills: A Study of University Students' Experiences' (2018) 24 *Teaching in Higher Education* 880; Tarja Tuononen, Heidi Hyytinen, Katri Kleemola, Telle Hailikari, Iina Männikkö and Auli Toom, 'Systematic Review of Learning Generic Skills in Higher Education – Enhancing and Impeding Factors' (2022) 7 *Frontiers in education* <<https://doi.org/10.3389/feduc.2022.885917>> accessed 20 January 2026.

²⁷ On mixed methods approach and in-depth analysis in case studies, see John Gerring, *Case Study Research: Principles and Practices* (Cambridge University Press 2007) 49, 68–69 and 79; Malcolm Tight, *Understanding Case Study Research: Small-scale Research with Meaning* (SAGE Publications 2017) 178–179.

skills, law schools and law teachers benefit from examples of and research on implementing different pedagogical models in legal education. We aim to encourage law teachers to apply, adapt, and study IBL in their contexts. Next, we provide an overview of previous research on generic skills, sense of belonging and self-efficacy. After this, we describe the course studied. In the subsequent sections, we describe the data collection and analysis, and our main findings. In the end, we discuss the results, limitations and conclusions.

Theoretical background

This section will introduce current scholarship on the concepts included in our research questions. We begin with a characterization of generic skills, followed by definitions of the four specific skills studied (relevant for all research questions). After that, we define sense of belonging and self-efficacy beliefs, relevant for research questions 2 and 3. Finally, we discuss the factors affecting the learning of generic skills, relevant especially for RQ4.

Generic skills

Generic skills are universal skills that can be applied across various disciplines.²⁸ There is no single definitive list of generic skills; rather, it is an umbrella term encompassing a variety of skill sets.²⁹ A recent review study found that the most frequently assessed generic skills in higher education are critical thinking, problem-solving, and communication skills.³⁰ As mentioned above, this study focuses on critical thinking, collaboration, communication, and self-regulation skills.

Previous research has highlighted the importance of generic skills. For example, these skills are related to study success³¹ as well as adjustment and

²⁸ Virtanen and Tynjälä (n 26); Tuononen and others (n 26).

²⁹ Tuononen and others (n 26); Hyytinen, Tuononen and Haarala-Muhonen (n 22).

³⁰ Tuononen and others (n 26).

³¹ Tarja Tuononen and Anne Parpala, 'The Role of Academic Competences and Learning Processes in Predicting Bachelor's and Master's Thesis Grades' (2021) 70 *Studies in Educational Evaluation* <<https://doi.org/10.1016/j.stueduc.2021.101001>> accessed 18 June 2025.

adaptation to higher education.³² These skills are also positively related to deep level learning processes and transition to working life.³³ However, recent studies have shown that the level and quality of generic skills among first-year students differ significantly.³⁴ Furthermore, some research suggests that the development of generic skills, such as critical thinking and written communication, is often limited during the first study years³⁵ and can remain limited throughout the entire duration of higher education.³⁶ Earlier studies have demonstrated that students' academic experiences, including the effort and time they dedicate to studying and their exposure to clear and structured teaching, are linked to the development of generic skills.³⁷

³² Petrie J. A. C. van der Zanden, Eddie Denessen, Antonius H. N. Cillessen and Paulien C. Meijer, 'Patterns of Success: First-Year Student Success in Multiple Domains' (2019) 44 *Studies in Higher Education* 2081; Katri Kleemola, Heidi Hyytinen and Auli Toom, 'Critical Thinking and Writing in Transition to Higher Education in Finland: Do Prior Academic Performance and Socioeconomic Background Matter?' (2023) 13 *European Journal of Higher Education* 488.

³³ Tarja Tuononen, Anne Parpala and Sari Lindblom-Ylänne, 'Graduates' Evaluations of Usefulness of University Education, and Early Career Success – A Longitudinal Study of the Transition to Working Life' (2019) 44 *Assessment and Evaluation in Higher Education* 581; Yolanda Guerra-Macías and Sergio Tobón, 'Development of Transversal Skills in Higher Education Programs in Conjunction with Online Learning: Relationship Between Learning Strategies, Project-based Pedagogical Practices, E-learning Platforms, and Academic Performance' (2025) 11 *Heliyon* <<https://doi.org/10.1016/j.heliyon.2024.e41099>> accessed 20 January 2026.

³⁴ Marie Evens, An Verburgh and Jan Elen, 'Critical Thinking in College Freshmen: The Impact of Secondary and Higher Education' (2013) 2 *International Journal of Higher Education* 139; Heidi Hyytinen, Auli Toom and Liisa Postareff, 'Unraveling the Complex Relationship in Critical Thinking, Approaches to Learning and Self-Efficacy Beliefs among First-Year Educational Science Students' (2018) 67 *Learning and Individual Differences* 132; van der Zanden and others (n 32); Katri Kleemola, Auli Toom, Heidi Hyytinen, Tarja Tuononen, Irem Karacay, Taylor Kroezen, Irena Kogan and Aigul Alieva, 'Exploring Intersectional Inequalities in Students' Sense of Belonging in Education Across Educational Pathways and Across Educational Contexts' (2025) 10 *Frontiers in Education* <<https://doi.org/10.3389/feduc.2025.1502115>> accessed 23 June 2025.

³⁵ Katrina Crotts Roohr, Huili Liu and Ou Lydia Liu, 'Investigating Student Learning Gains in College: A Longitudinal Study' (2017) 42 *Studies in Higher Education* 2284.

³⁶ Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses* (University of Chicago Press 2011); van Damme and Zahner (n 22).

³⁷ Arum and Roksa (n 36); Cindy A. Kilgo, Jessica K. Ezell Sheets and Ernest T. Pascarella, 'The Link Between High-impact Practices and Student Learning: Some Longitudinal Evidence' (2015) 69 *Higher Education* 509; Xiaojing Lv, Juanjuan Ma, Thomas M. Brinthaupt, Shaochun Zhao and Xuezu Ren, 'Impacts of University Lockdown During the Coronavirus Pandemic on College Students' Academic Achievement and Critical Thinking: A Longitudinal Study' (2022) 13 *Frontiers in Psychology* <<https://doi.org/10.3389/fpsyg.2022.995784>> accessed 18 June 2025; Tuononen and others (n 26).

The importance of developing skills in legal education has received a lot of scholarly attention.³⁸ Quite often, the skills perspective is justified with findings about their relevance in legal work³⁹, raising questions about balancing the ideals of liberal education with employability of graduates.⁴⁰ It has been suggested that it is possible to combine the development of generic or transferable skills and the learning of profession-specific lawyering skills⁴¹ or to integrate the learning of practical skills to studying academic legal content.⁴² The range, definitions and classifications of relevant legal skills vary in research. The generic skills discussed in this article have been classified in a multitude of ways. Skills included in critical thinking, for example locating, reading and using relevant information, have been labelled ‘academic (legal) skills’.⁴³ Collaboration, communication and skills related to self-regulation have been considered ‘soft skills’ in contrast with ‘hard skills’ related to learning the law.⁴⁴

In Finland, the annual career monitoring survey gives information on how lawyers view the practical relevance of generic skills and the development of the skills during their LLM studies. Finnish lawyers consider the skills studied highly relevant in their work, although the survey items do not exactly match our conceptual structure. The survey also testifies to shortcomings in the development of generic skills during legal studies.⁴⁵

³⁸ See eg William Twining, ‘Legal Skills and Legal Education’ (1988) 22 *The Law Teacher* 4; R. Michael Cassidy, ‘Beyond Practical Skills: Nine Steps for Improving Legal Education Now’ (2012) 53 *Boston College Law Review* 1515.

³⁹ Jessica Guth, ‘Academic skills in legal education’, *Elgar Concise Encyclopedia of Legal Education* (2025) 1; Nigel Duncan, ‘Professional Legal Education’, *Elgar Concise Encyclopedia of Legal Education* (2025) 314, 315.

⁴⁰ Juliet Turner, Alison Bone and Jeanette Ashton, ‘Reasons Why Law Students Should Have Access to Learning Law through a Skills-Based Approach’ (2018) 52 *The Law Teacher* 1, 4, 8 and 15–16.

⁴¹ Sally Kift, ‘Lawyering Skills: Finding Their Place in Legal Education’ (1997) 8 *Legal Education Review* 43, 51, 55 and 72.

⁴² Dawn Jones, ‘Legal Skills and the SQE: Confronting the Challenge Head On’ (2019) 53 *The Law Teacher* 35, 42–47.

⁴³ Guth (n 39) 1.

⁴⁴ Aspasia I. Tsaoussi, ‘Using Soft Skills Courses to Inspire Law Teachers: A New Methodology for a More Humanistic Legal Education’ (2020) 54 *The Law Teacher* 1, 2–5.

⁴⁵ Education Statistics Finland <<https://vipunen.fi/fi-fi/yliopisto/Sivut/Uraseuranta.aspx>> accessed 23 June 2025.

Critical thinking, collaboration, communication, and self-regulation skills

In this article, we define critical thinking as the ability to seek, analyse and assess relevant information, also including the ability to apply the knowledge when solving domain-specific problems.⁴⁶ In a legal context, the abilities we have included in our operationalisation of critical thinking (Table 1) manifest themselves, for example, as the abilities to seek applicable legislation and relevant scholarly articles, to recognize the relative weight of different sources in accordance with the doctrine of legal sources, to evaluate the strength of legal arguments, and to apply norms to typical situations.⁴⁷

In scholarship on legal education, critical thinking has received different interpretations. The distinction between a neutral and an openly normative or activist conception of critical thinking seems commonplace.⁴⁸ In a similar vein, the immanent and extrinsic qualities of critical thinking in law have been distinguished.⁴⁹ Some definitions of critical thinking in law include an element of deviation from the mainstream⁵⁰ or disobedience towards legal status quo⁵¹. This element is mostly absent from our definition of critical thinking: our data stem from a first-year law course whose learning objectives focus on basic research skills, such as formulating research questions, finding reliable sources, and presenting reasonable arguments based on the materials. As the participants were in the beginning of their studies, it was not considered feasible to emphasise their skills of normatively assessing the legitimacy of the law.

⁴⁶ Cf Peter A. Facione, *Critical Thinking: A Statement of Expert Consensus for Purposes of Educational Assessment and Instruction* (California Academic Press 1990); Diane F. Halpern, *Thought and Knowledge: An Introduction to Critical Thinking* (Psychology Press 2014).

⁴⁷ These methodological legal skills have been considered an essential part of the legal culture shared by the legal profession, Kaarlo Tuori, *Critical Legal Positivism* (Routledge 2017) 163–212.

⁴⁸ See eg Trevor Ryan, 'Coding for Critical Thinking: A Case Study in Embedding Complementary Skills in Legal Education' (2021) 31 *Legal Education Review* 81, 85; Bart van Klink, 'Critical Thinking in Academic Legal Education: A Liberal Conception' (2023) 12 *Law and Method* 1, 1–3.

⁴⁹ Gabrielle Appleby, Peter Burdon and Alexander Reilly, 'Critical Thinking in Legal Education: Our Journey' (2013) 23 *Legal Education Review* 345, 348.

⁵⁰ Van Klink (n 48) 6.

⁵¹ Nickolas James, Clair Hughes and Clare Cappa, 'Conceptualising, Developing and Assessing Critical Thinking in Law' (2010) 15 *Teaching in Higher Education* 285, 288.

In this article, collaboration skills refer to one's ability to work and cooperate with others.⁵² It includes, inter alia, understanding the perspectives of others, acting as a group member and doing goal-oriented work together (Table 1). Collaboration is closely related to communication skills in that, for example, information sharing could be seen as an integral part of collaboration.⁵³ Communication skills, ranging from verbal (written or oral) to non-verbal communication, are regarded as the abilities one uses when giving and receiving different kinds of information and communicating it to different audiences. The ability to communicate effectively is essential for learning from the very beginning of higher education studies⁵⁴ and it is also central to academic careers.⁵⁵ As the course studied was completed in small groups, collaboration and communication were required from all students throughout the course, and they are naturally necessary skills in legal work.

Self-regulation skills, in turn, involve planning, monitoring, and organising one's time and activities, as well as taking responsibility for one's own learning to achieve established goals.⁵⁶ These skills are indispensable for lawyers, as they often work with tight deadlines and are responsible for the quality of their advice. In the course studied in this article, self-regulation was required, for example, to manage assignment deadlines and one's own contribution to the student team's research project.

Sense of belonging and self-efficacy beliefs

A sense of belonging can be described as a fundamental psychological need, encompassing feelings of acceptance, connection with others, support, and safety.⁵⁷ In the context of education, a sense of belonging is closely tied to

⁵² Hyytinen, Tuononen and Haarala-Muhonen (n 22).

⁵³ Leslie Hinyard, Eileen Toomey, Kathrin Eliot and Anthony Breitbach, 'Student Perceptions of Collaboration Skills in an Interprofessional Context: Development and Initial Validation of the Self-assessed Collaboration Skills Instrument' (2019) 42 *Evaluation & the Health Professions* 450.

⁵⁴ Kleemola, Hyytinen and Toom (n 32).

⁵⁵ Drennan and Keyser (n 23).

⁵⁶ Heidi Hyytinen, Kari Nissinen, Katri Kleemola, Jani Ursin and Auli Toom, 'How Do Self-regulation and Effort in Test-taking Contribute to Undergraduate Students' Critical Thinking Performance?' (2023) 49 *Studies in Higher Education* 192.

⁵⁷ Richard M. Ryan and Edward L. Deci, 'Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions' (2000) 25 *Contemporary Educational Psychology* 54; Kleemola and others (n 34).

students' engagement with academic communities.⁵⁸ Prior research has distinguished between the academic and social dimensions of belonging within educational institutions.⁵⁹ It has been found that the sense of belonging that students experience within educational settings is crucial for their study success, progress, overall educational attainment, and well-being.⁶⁰ In line with these findings, prior research on generic skills has also suggested that promoting feelings of belonging supports the learning of generic skills.⁶¹ A sense of belonging fosters a supportive environment, which in turn enhances students' engagement and motivation, ultimately facilitating the learning of generic skills.

Law students' sense of belonging has been studied in various contexts. A study revealed strong variation among law students' sense of belonging in a Norwegian law faculty, with the social and academic climate explaining much of the variation. Students with a positive perception of their social learning environment due, for example, to often attending events organised by student associations and meeting fellow students outside of the faculty, had a stronger sense of belonging. The same applied to the students' satisfaction with their engagement with teachers. On the other hand, perceived competition among students had a negative influence on their sense of belonging.⁶²

In a survey for online LLB students in the UK, many negative comments around mental well-being were related to distance learning. The online law students had a need for a greater sense of relatedness, as well as a desire for

⁵⁸ Vesa Korhonen, Markus Mattsson, Mikko Inkinen and Auli Toom, 'Understanding the Multidimensional Nature of Student Engagement During the First Year of Higher Education' (2019) 10 *Frontiers in Psychology* <<https://doi.org/10.3389/fpsyg.2019.01056>> accessed 23 June 2025.

⁵⁹ Korhonen and others (n 58); Kleemola and others (n 34).

⁶⁰ Kelly-Ann Allen, Margaret L. Kern, Christopher S. Rozek, Dennis M. McInerney and George M. Slavich, 'Belonging: A Review of Conceptual Issues, an Integrative Framework, and Directions for Future Research' (2021) 73 *Australian Journal of Psychology* 87; Sandra Graham, Kara Kogachi and Jessica Morales-Chicas, 'Do I Fit in: Race/Ethnicity and Feelings of Belonging in School' (2022) 34 *Educational Psychology Review* 2015; Kleemola and others (n 34).

⁶¹ Virtanen and Tynjälä (n 26); Josipa Roksa, Teniell L. Trolan, Ernest T. Pascarella, Cindy A. Kilgo, Charles Blaich and Kathleen S. Wise, 'Racial Inequality in Critical Thinking Skills: The Role of Academic and Diversity Experiences' (2017) 58 *Research in Higher Education* 119.

⁶² Uehara and others (n 24) 31–32.

further support, encouragement and community.⁶³ In an Australian project focusing on first-year law students, the main preconditions of student belonging were related to communication and connection, with emphasis on first or initial connections and on communications between teachers and students, and student peers. For some students, attendance at face-to-face classes was an important support for belonging.⁶⁴ In the US, law students belonging to disadvantaged, underrepresented or minoritised groups have been perceived to have a lower sense of belonging in the university, due to experiences of bias and a vicious cycle of repetitive negative experiences.⁶⁵

Self-efficacy beliefs, as described by Bandura⁶⁶ are the confidence that students have in their own ability to perform particular tasks or skills, including their belief in their capacity to plan and implement the steps needed to achieve set (course) objectives. Self-efficacy is crucial especially when students encounter challenging tasks, as strong self-efficacy can support their persistence and effort.⁶⁷ It has also been found that self-efficacy beliefs predict and mediate students' learning outcomes, study success and motivation.⁶⁸ Therefore, in addition to helping students develop the necessary knowledge and skills, more attention should be given to supporting their self-efficacy beliefs. One suggested way to enhance self-efficacy is by providing students with authentic

⁶³ Emma Jones, Rajvinder Samra and Mathijs Lucassen, 'The World at Their Fingertips? The Mental Wellbeing of Online Distance-Based Law Students' (2019) 53 *The Law Teacher* 49, 67.

⁶⁴ Sarah Moulds and Narelle Perry, 'Belonging in the First-Year Law Classroom: Preliminary Reflections from a South Australian Case Study' (2024) 34 *Legal Education Review* 77, 86 and 88.

⁶⁵ Victor D. Quintanilla and Sam Erman, 'Mindsets in Legal Education' (2020) 69 *Journal of Legal Education* 412, 428–429; Elizabeth Bodamer, 'Do I Belong Here? Examining Perceived Experiences of Bias, Stereotype Concerns, and Sense of Belonging in U.S. Law Schools' (2020) 69 *Journal of Legal Education* 455, 457.

⁶⁶ Albert Bandura, *Self-efficacy: The Exercise of Control* (W.H. Freeman and Company 1997) 3.

⁶⁷ Mart van Dinther, Filip Dochy and Mien Segers, 'Factors Affecting Students' Self-efficacy in Higher Education' (2011) 6 *Educational Research Review* 95.

⁶⁸ Lekissa Alemayehu and Hsiu-Ling Chen, 'The Influence of Motivation on Learning Engagement: The Mediating Role of Learning Self-efficacy and Self-monitoring in Online Learning Environments' (2023) 31 *Interactive Learning Environments* 4605; Mark Feng Teng and Zi Yang, 'Metacognition, Motivation, Self-efficacy Belief, and English Learning Achievement in Online Learning: Longitudinal Mediation Modeling Approach' (2023) 17 *Innovation in Language Learning and Teaching* 778.

learning tasks that require them to apply their knowledge and skills in various situations.⁶⁹

A survey in a private US law school in 2008 revealed a correlation between high study success and lower self-efficacy. The result was attributed to the performance-based nature of traditional legal pedagogy, more precisely to experiences of hard competition, negative reactions to participating in the Socratic dialogue under pressure in large classes and to receiving little feedback.⁷⁰ In this spirit, Palmer has called for the law professors to reach out to students and provide constructive formative feedback that will increase self-efficacy. He emphasises removing unwarranted pressure on law students and encouraging them to become self-regulated learners.⁷¹ This US example is consistent with the previous remarks about the importance of pedagogical practices in supporting students' self-efficacy. It also reminds about the importance of taking the pedagogical context into account when interpreting findings about the students' self-efficacy.

The learning of generic skills

Generic skills do not develop on their own. Teachers need to make intentional pedagogical choices to foster these skills through their teaching methods and pedagogical practices.⁷² Research indicates that the most effective way to teach generic skills is through explicit and well-structured instruction.⁷³ Additionally, activating teaching methods that combine theory with practice as well as emphasise collaboration and interaction between students and teachers have been found to enhance the development of these skills.⁷⁴ Conversely, traditional university teaching methods, including teacher-led lecturing, have been negatively associated with the learning of generic skills.⁷⁵ It has also been

⁶⁹ Van Dinther, Dochy and Segers (n 67); Hyytinen, Toom and Postareff (n 34).

⁷⁰ Leah M. Christensen, 'Enhancing Law School Success: A Study of Goal Orientations, Academic Achievement and the Declining Self-Efficacy of Our Law Students' (2009) 33 *Law & Psychology Review* 57, 77–79.

⁷¹ Jason S. Palmer, 'The Millennials Are Coming: Improving Self-Efficacy in Law Students through Universal Design in Learning' (2015) 63 *Cleveland State Law Review* 675, 706.

⁷² Christina Wai Mui Yu and Gillian M. Boulton-Lewis, 'Hong Kong Secondary Business Teachers' Conceptions of Student Competence and Ways of Teaching' (2008) 30 *Journal of Vocational Education and Training* 257.

⁷³ Arum and Roksa (n 36); Kilgo, Sheets and Pascarella (n 37); Roksa and others (n 61); Lv and others (n 37); Tuononen and others (n 26).

⁷⁴ Virtanen and Tynjälä (n 26); Tuononen and others (n 26).

⁷⁵ Tuononen and others (n 26).

suggested that students' positive experiences of the learning atmosphere have an important role in learning generic skills.⁷⁶

In scholarship on legal education, many authors have supported active learning, indicating that it is useful in learning difficult topics⁷⁷ and higher-level cognitive skills, professional skills and attitudes.⁷⁸ Regarding the development of law students' critical thinking skills, many pedagogical recommendations have been given: making the students share their learning experiences, creating a safe learning environment for critical reflection and discussion, exploring the various perspectives in a discussion and taking positions in a discussion⁷⁹, as well as utilising critical exercises and reflective essays⁸⁰. Guth has summarised the current state of opinion and research on skills-based legal pedagogy by stating that it is 'widely accepted that skills should be taught', but 'there is little consensus on the best way to teach skills' and that overall we need more research to 'fully understand what is and should be taught and how'.⁸¹

Context of our study: course design and students

The data analysed in this article were collected in the spring of 2024 from a 4 ECTS law course 'Introduction to Legal Decision-Making' at the University of Eastern Finland (hereinafter UEF) Law School. The course focuses on the basics of the Finnish judicial system, including the courts, judicial processes, the structure and premises of legal argumentation, and the role of a judge. The course is obligatory for law degree students. In addition, the course is available

⁷⁶ Roksa and others (n 61); Virtanen and Tynjälä (n 26).

⁷⁷ Cynthia Ho, Angela Upchurch and Susan Gilles, 'An Active-Learning Approach to Teaching Tough Topics: Personal Jurisdiction as an Example' (2016) 65 *Journal of Legal Education* 772, 792–795.

⁷⁸ Gerald F. Hess, 'Seven Principles for Good Practice in Legal Education: Principle 3: Good Practice Encourages Active Learning' (1999) 49 *Journal of Legal Education* 401, 402–403.

⁷⁹ van Klink (n 48) 13.

⁸⁰ James, Hughes and Cappa (n 51) 292–294.

⁸¹ Guth (n 39).

for UEF students completing another degree, as well as for open university students.⁸² Most students take the course during second semester.

The pedagogical model employed in the course was inquiry-based learning. As the process is based on the students' research activities, the teachers mainly facilitate and guide their process instead of lecturing.⁸³ Inquiry-based learning was selected as the pedagogical model of the course since it requires the students to complete a well-structured small-scale research process, developing their understanding of basic research skills. From the curriculum perspective, it was considered important that one course of the first-year studies contains such an initiation to doing research. The authors Mielityinen and Fifield taught the course.

In the spring of 2024, the course consisted of five mandatory workshops, held between February 27 and May 8, along with individual and group assignments. The primary learning task was a small-scale research project, which students conducted in small groups, focusing on a self-chosen theme related to legal decision-making. Students were allowed to form their own groups, while instructors assigned groups for the remaining students. The final project was graded numerically. The workshops aimed to support the students' research projects. The course structure aligned with the typical five stages of the inquiry-based learning cycle:⁸⁴

⁸² In Finland, universities offer many courses also as so-called 'open studies' with a moderate tuition fee. Anyone can do open studies without being accepted in a degree programme. In contrast with the Open University in the UK, in Finland the open studies are not provided by a separate organization but instead by each university. Studyinfo, Open Studies <<https://opintopolku.fi/konfo/en/sivu/open-studies>> accessed 28 September 2025.

⁸³ Rachel Spronken-Smith, Rebecca Walker, Julie Batchelor, Billy O'Steen and Tom Angelo, 'Evaluating Student Perceptions of Learning Processes and Intended Learning Outcomes Under Inquiry Approaches' (2012) 37 *Assessment & Evaluation in Higher Education* 57; Philippa Levy and Robert Petrulis, 'How Do First-year University Students Experience Inquiry and Research, and What Are the Implications for the Practice of Inquiry-based Learning?' (2012) 37 *Studies in Higher Education* 85; Anindito Aditomo, Peter Goodyear, Ana-Maria Bliuc and Robert A. Ellis, 'Inquiry-based Learning in Higher Education: Principal Forms, Educational Objectives, and Disciplinary Variations' (2013) 38 *Studies in Higher Education* 1239.

⁸⁴ Margus Pedaste, Mario Mäeots, Leo A. Siiman, Ton de Jong, Siswa A.N. van Riesen, Ellen T. Kamp, Constantinos C. Manoli, Zacharias C. Zacharia and Eleftheria Tsourlidaki, 'Phases of Inquiry-based Learning: Definitions and the Inquiry Cycle' (2015) 14 *Educational Research Review* 47.

- (1) Orientation and raising interest: In the first two workshops, the teachers presented theoretical perspectives on the topics. During the early weeks of the course, students read and reflected on selected research literature.
- (2) Formulating theory-based questions: In the next phase, the students developed their preliminary research questions in groups. The questions were refined based on feedback from the teachers and fellow students.
- (3) Research planning and execution: Students gathered additional materials and conducted interviews.
- (4) Drawing conclusions: Students prepared a preliminary summary of their findings, which they presented and discussed in the fourth workshop.
- (5) Communicating results and reflecting: In the final workshop, student groups presented and discussed their final reports. The students also reflected on their group's performance and completed a self-assessment.

Inquiry-based learning can be conducted in different ways.⁸⁵ From an epistemic perspective, the goal may be either to map existing knowledge or to generate new knowledge.⁸⁶ The course discussed in this article involved students becoming acquainted with existing research, though some new insights emerged from the interviews. Secondly, the responsibility for formulating the research question can be distributed differently between students and teachers. In the course, students developed their research question independently in groups. They were also free to select relevant research literature to support their inquiry. However, the teachers guided the development of the research questions by providing instructions on scope and sources when necessary. In the classification of inquiry-based learning by Spronken-Smith and Walker, the course thus resembles guided inquiry in which 'teachers provide questions to stimulate inquiry but students are self-directed in terms of exploring these questions'.⁸⁷

Thirdly, the amount of guidance and scaffolding in inquiry-based learning can vary.⁸⁸ In the course, a lot of guidance was offered, as this was many students' first experience of conducting research. The teachers provided lessons on methodology, gave feedback on group plans, and offered instructions on tasks

⁸⁵ On the following distinctions, see also Hall (n 12) 85–87.

⁸⁶ Spronken-Smith and others (n 83) 57–58; Levy and Petrulis (n 83) 96–97.

⁸⁷ Spronken-Smith and Walker (n 10) 726–727.

⁸⁸ Spronken-Smith and others (n 83) 57–58; Levy and Petrulis (n 83) 96–97; Spronken-Smith and Walker (n 10) 726.

such as interviewing. Moreover, the research questions, plans, and interim assignments were discussed in the workshops.

In 2024, a total of 97 students participated in the course. Two-thirds of them had already been accepted in the law degree programme, whereas one-third of the participants were open university students. Most of the open university students were taking the course to qualify for the admissions procedure of the law degree programme. Based on their first names, approximately 70 per cent of the students who completed the course were presumably women and 30 per cent were men.

The number of study places in Finnish legal education has traditionally been relatively low. As legal education is generally considered one of the most secure educational choices, there is intense competition for study places in LLB and LLM degree programmes.⁸⁹ As a result, the students commencing their law studies in Finnish law schools have good academic competences, as well as a goal-oriented mindset, sometimes of a perfectionist or competitive nature.⁹⁰

In other respects, the law students at UEF are relatively heterogeneous. The majority of study places in Finnish legal education are allocated based on the applicants' success in national entrance examination or the national matriculation examination. The new law students admitted on this basis are usually quite young, in their early 20s and with no prior bachelor's or master's degree.⁹¹ However, some law students are selected based on their success in open university law studies. They are more typically in their 30s or 40s, as many of them have a prior bachelor's or master's degree as well as professional experience.⁹² These older students are often rooted in another city, prioritising

⁸⁹ For example, in 2025 there were approximately 600 study places available in the combined LLB & LLM programmes of Finnish law faculties, with over 9,000 applicants. Education Statistics Finland <<https://vipunen.fi/en-gb/>> accessed 24 June 2025.

⁹⁰ Jukka Mähönen, Manne Airaksinen, Atte Korte, Albert Mattsson, Sampo Mielityinen, Johanna Niemi, Mirjami Paso, Johanna Rantanen, Sirpa Moitus, Laura Partanen and Mira Huusko, *Oikeustieteellisen alan korkeakoulutuksen arviointi* (Kansallinen koulutuksen arviointikeskus 2021) 93.

⁹¹ In 2024, 50 per cent of the new LLM students admitted to UEF Law School based on either entrance examination or matriculation examination were 18–21 years old, whereas only 10 per cent of them were at least 25 years old. Education Statistics Finland <<https://vipunen.fi/en-gb/>> accessed 24 June 2025.

⁹² In 2024, of the new students admitted to UEF Law School degree programmes based on their open university studies approximately one-third were under 30 years old, one-third 30–39 years old, and one-third at least 40 years old. Education Statistics Finland <<https://vipunen.fi/en-gb/>> accessed 24 June 2025.

online studies and visiting campus only if necessary. As a result, the student body at UEF Law School is highly versatile both in terms of the students' age, education, profession, and general circumstances, which has been recognised as a challenge in a national evaluation of legal education.⁹³

Materials and methods

Data collection and participants

The data were collected from course participants using an electronic survey form, which was open from 8 May 2024 to 15 May 2024. Link to the survey was available to the participants during the final workshop and in the learning management system of the course. The survey was not a part of the course assignments, and the students were clearly notified that filling the survey is voluntary and anonymous.

Approximately 66 per cent of the course participants (64/97) responded to the survey. 63 per cent of the respondents were degree students at UEF Law School, whereas one-third of them were open university students. The number of respondents attending the course at least partly on campus (n=33) was almost the same as the number of respondents studying online (n=31). In these respects, the group of respondents was almost identical with the group of all course participants.

Instruments

The data consist of survey questions about experiences of learning generic skills, self-efficacy beliefs, sense of belonging and attending law studies, as well as one open-ended question about the aspects of the course which supported the development of generic skills.

RQ1–RQ2: The survey items included 21 items measuring students' experiences of learning generic skills, which were modified from the previous studies.⁹⁴ Students were asked to evaluate how they have learned different generic skills during the course. Self-efficacy beliefs were measured using six

⁹³ Mähönen and others (n 90) 128.

⁹⁴ Virtanen and Tynjälä (n 26); Hanni Muukkonen, Minna Lakkala, Pekka Lahti-Nuuttila, Liisa Ilomäki, Klas Karlgren and Auli Toom, 'Assessing the Development of Collaborative Knowledge Work Competence: Scales for Higher Education Course Contexts' (2020) 64 *Scandinavian Journal of Educational Research* 1071.

items. These items were based on the HowULearn questionnaire⁹⁵ and Motivated Strategies for Learning Questionnaire (MSLQ)⁹⁶, and they were contextualised to focus on the course context. The six items for measuring students' sense of belonging to their law studies were modified from PISA 2018⁹⁷ to fit the context of higher education. A 5-point Likert scale (1 = strongly disagree, and 5 = strongly agree) was used to measure learning generic skills, self-efficacy beliefs and sense of belonging.

RQ3: Students' mode of attendance was measured by asking how a student has mainly attended law studies (options: online, in-person, equally in both). For the analysis, students were divided into two groups which were students who had participated in contact teaching (that is, studying in-person or hybrid) and students who had completed their first-year studies remotely.

RQ4: To facilitate an analysis of the students' perception of aspects supporting learning, the survey included a question 'which aspects of the course supported the development of your generic skills?'. Altogether 32 students responded, with one respondent elaborating generally on the survey instead of answering the question. The remaining 31 answers are analysed below.

Analysis

RQ1–RQ3: First, explorative factor analysis (EFA) was conducted for the items measuring students' experiences of learning generic skills, self-efficacy beliefs and sense of belonging to examine how the survey worked in the new context. Three sets of items (self-efficacy beliefs six items, sense of belonging six items, learning of generic skills 21 items) were separately subjected to an EFA. Maximum Likelihood was used for extraction and Direct Oblimin for

⁹⁵ Anna Parpala, Sari Lindblom-Ylänne, Erkki Komulainen, Topi Litmanen and Laura Hirsto, 'Students' Approaches to Learning and Their Experiences of the Teaching–Learning Environment in Different Disciplines' (2010) 80 *British Journal of Educational Psychology* 269.

⁹⁶ Paul R. Pintrich and Elisabeth V. de Groot, 'Motivational and Self-regulated Learning Components of Classroom Academic Performance' (1990) 82 *Journal of Educational Psychology* 33.

⁹⁷ OECD, *PISA 2018 Results (Volume III): What School Life Means for Students' Lives* (OECD Publishing 2019) Chapter 9. Sense of belonging at school
<<https://doi.org/10.1787/acd78851-en>> accessed 23 June 2025.

rotation.⁹⁸ The Kaiser-Meyer-Olkin test showed that the data were acceptable to conduct factor analysis: experiences of learning generic skills (KMO=.871), self-efficacy beliefs (KMO=.886), and sense of belonging (KMO=.817). EFA yielded one factor solution both for self-efficacy beliefs and for sense of belonging. These findings are in line with how these scales were designed in the original studies.⁹⁹ With the experiences of learning generic skills, a four-factor solution was identified through EFA.

Next, we examined the communalities and factor loadings of the items as well as created the final scales. Two items were deleted from the subsequent analysis due to low communalities or low factor loadings: one item from the sense of belonging scale (I feel awkward and out of place at the university) and the other from the experiences of learning generic skills scale (Leading group work). Table 1 presents the final scales, items and Cronbach's alphas. Cronbach's alphas were all above the acceptable level (ie >.70).¹⁰⁰

Table 1. The final scales, items and Cronbach's alphas (items marked with an asterisk were reverse-coded before the analysis).

Scales	Items	Cronbach's alphas
Sense of belonging	I feel like an outsider at university* I make friends easily at university I feel like I belong at university Other students seem to like me I feel lonely at university*	.834
Self-efficacy beliefs	I believed I would do well in the course. I was confident that I could understand the most difficult topics covered in the course. I was certain that I would succeed in the assignments given in the course I was confident that I could understand the basic concepts covered in the course. I expected to succeed in this course. I was certain that I could learn the skills required in the course well.	.909
Generic skills		

⁹⁸ Anna B. Costello and Jason Osborne, 'Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis' (2005) 10 Practical Assessment, Research, and Evaluation <<https://doi.org/10.7275/yjy1-4868>> accessed 23 June 2025.

⁹⁹ Parpala and others (n 95); OECD (n 97).

¹⁰⁰ Mohsen Tavakol and Reg Dennick, 'Making Sense of Cronbach's Alpha' (2011) 2 International Journal of Medical Education 53.

Critical thinking	Seeking domain-specific knowledge from different sources Analysing information Identifying central information in own discipline Questioning information Evaluating knowledge from different perspectives Solving domain-specific problems Making decisions Applying knowledge to different situations Recognising domain-specific ethical questions Presenting new ideas	.920
Self-regulation skills	Coordinating and organising own activities Taking responsibility for own learning and studying Planning own use of time Evaluating own competences	.914
Collaboration skills	Understanding the perspectives of other people Goal-oriented work together with others Acting as a group member Goal-oriented negotiation with others	.854
Communication skills	Writing clear academic text Verbal communication of domain-specific knowledge Providing convincing arguments	.835

In the second phase of analysis, we analysed the relationship between self-efficacy, sense of belonging and generic skills with correlation (Pearson). Thereafter, the Mann–Whitney U test was used to investigate the relationship between the attendance mode and the experiences of learning generic skills, self-efficacy beliefs and sense of belonging. The Mann–Whitney U test was chosen because the analyses relied on relatively small sub-samples ($n < 40$). The effect sizes were also analysed. Analyses were conducted with SPSS.

RQ4: Students' open-ended answers to the question 'which aspects of the course supported the development of your generic skills?' were analysed using qualitative content analysis. The analysis proceeded in a data-driven, inductive manner, as our aim was to uncover and classify the students' own experiences and perceptions. Some conceptual, deductive elements were included in the final categorisation of findings.¹⁰¹ First, the authors Mielityinen and Fifield read the responses to gain an overall view of the students' perceptions. Then, they met to discuss their observations and interpretations of the data and agreed on a common coding scheme. After that, Mielityinen and Fifield independently reread the responses and coded the whole data in accordance with the coding scheme, using proposition as the unit of analysis. At this stage, the conceptual

¹⁰¹ On the interplay of data-driven and concept-driven content analysis, see Margrit Schreier, *Qualitative Content Analysis in Practice* (SAGE Publications 2012) 87–92.

models of inquiry-based learning¹⁰² also affected the categorisation of responses. The inter-rater reliability of the coding was determined, indicating high consistency (80 per cent of the propositions coded similarly at this stage). Subsequently, Mielityinen and Fifield reviewed the coding together and formed respective categories and sub-categories, which were refined and labelled. Appropriate data examples were chosen and translated into English. The obtained categories and sub-categories are presented in the following section (Table 4). Finally, the results were discussed and interpreted by all the authors together.

Results

RQ1–RQ2: The development of and interrelations between generic skills, self-efficacy and sense of belonging

First, the descriptive statistics revealed that the students' scores on the experiences of learning generic skills were high. For self-efficacy beliefs and sense of belonging, their scores were also high. Means and standard deviations are presented in Table 2. Next, the correlational analyses showed that all generic skills correlated positively to each other at a significant level. Self-efficacy beliefs had a positive correlation with communication skills. However, the sense of belonging did not correlate with other measured variables.

Table 2. Means, standard deviations and correlations.

	M (SD)	1.	2.	3.	4.	5.	6
1. Self-efficacy beliefs	3.677 (.695)	1					
2. Sense of belonging	3.503 (.841)	.094	1				
3. Critical thinking	3.619 (.681)	.128	-.043	1			
4. Self-regulation skills	3.637 (.883)	.117	.083	.612**	1		
5. Collaboration skills	3.898 (.682)	.097	.113	.553**	.479**	1	
6. Communication skills	3.693 (.721)	.418**	.030	.651**	.570**	.589**	1

¹⁰² Pedaste and others (n 84).

****.** Correlation is significant at the 0.01 level (2-tailed).

RQ3: Mode of attendance and its relation to the experiences of learning generic skills, self-efficacy and sense of belonging

Next, we explored how attending law studies in person or online was related to the

experiences of learning generic skills, self-efficacy beliefs and sense of belonging. The results showed that students who had participated in contact teaching had significantly higher scores on sense of belonging compared to the students who had completed their first-year studies remotely, with a medium effect size, $r = .33$. However, there were no significant differences in experiences of learning generic skills or self-efficacy beliefs (see Table 3).

Table 3. Mode of law studies attendance: Relationship with self-efficacy, sense of belonging, and generic skills learning experiences.

	Studying remotely (n=31) M (SD)	Studying in- person or hybrid (n=33) M (SD)	Z	p
Self-efficacy beliefs	3.69 (.79)	3.66 (.60)	-.216	.829
Sense of belonging	3.30 (.68)	3.69 (.94)	-2.32	.020*
Critical thinking	3.64 (.75)	3.60 (.62)	-.309	.757
Self-regulation	3.73 (.98)	3.55 (.79)	-.679	.497
skills	3.76 (.76)	4.03 (.59)	-1.47	.141
Collaboration skills				
Communication	3.79 (.79)	3.61 (.64)	-.913	.361
skills				

* $p < 0.05$

RQ4: Aspects of the course supporting the learning of generic skills

Next, we analysed which aspects of the course were experienced by the law students as supportive of learning generic skills. The results based on qualitative content analysis of the students' answers are displayed in Table 4, with three main categories. Firstly, the pedagogical practices of the course

contributed to learning generic skills. For example, teamwork and the overall course process received positive comments from the students. Secondly, many responses indicated that the research-oriented activities included in the inquiry-based learning process developed generic skills. Finally, interaction both within a specific student team and generally during the course had supported the students' learning.

Table 4. Aspects of the course supporting the learning of generic skills (N=64).

Categories and sub-categories, including the frequency of sub-categories	Excerpts from the data
Pedagogical practices	
Teamwork (12)	'working in a team – it also provided confidence in one's own argumentation'
Teaching and guidance, including feedback (9)	'feedback from the teachers and other students'
The course process (7)	'regular deadlines for mid-course assignments, moving the research project forward'
Independent study (4)	'independent work'
Research-oriented activities	
Production of research (8)	'course's final product, that is scientific research including respective work'
Acquisition and analysis of information (6)	'acquiring, applying and assessing versatile information'
Planning one's own activities (5)	'planning and outlining a large assignment (= research project)'
Interaction	
Interaction in the student team (4)	'reflecting one's own thoughts with other team members'
Interaction with other course participants (6)	'free discussion with other students'
Interaction during the course in general (4)	'teaching style emphasising interaction'

Discussion

RQ1 and RQ4: Development of generic skills

As mentioned above (Table 2), we answered research question 1 in a positive tone. The inquiry-based course effectively developed law students' generic skills, already during first-year studies. Learning outcomes were positive concerning all the generic skills studied, that is critical thinking, collaboration, communication and self-regulation. The skills correlated positively to each other, indicating balanced development without any one skill dominating. These results align with previous studies on the potential of IBL in legal education¹⁰³ and with the higher education pedagogical research recognising the effectiveness of activating teaching methods, including combination of theory and practice as well as collaboration and interaction.¹⁰⁴

In terms of developing legal education, our results suggest that activating and collaborative course design can improve learning outcomes and better prepare graduates for professional demands. However, caution is in order since our data consist of students' self-reported experiences and it does not include a control group nor a combination of pre- and post-testing.

In response to research question 4, qualitative analysis highlighted several aspects of the course which the students experienced as supportive of generic skills (Table 4). In terms of assessing IBL as a pedagogical model it is, firstly, interesting to note that many of these positive aspects are directly related to IBL. This applies to doing independent study, production of research, acquisition and analysis of information and planning one's own activities. Thus, IBL as such contains several elements which support the learning of critical thinking and other generic skills. This interpretation aligns with the overall positive quantitative results on learning generic skills (RQ1).

Second, many positive aspects mentioned by the students have a strong connection with specific generic skills. Acquisition and analysis of information are essential critical thinking skills; teamwork is intertwined with collaboration skills; successful interaction requires communication skills; planning one's activities is an integral element of self-regulation. Thus, our qualitative results

¹⁰³ Sylvester (n 16); Hall (n 12); Carpenter, Koch and Stubbs (n 18); Broemel and Muthorst (n 21).

¹⁰⁴ Virtanen and Tynjälä (n 26).

align with positive correlation between all generic skills revealed in the factor analysis (RQ1).

Thirdly, the qualitative analysis revealed many positive aspects of the course which were either intentionally designed by the teachers or required their contribution during the course: teaching and guidance, including feedback; the course process; requirement of doing teamwork. This finding is consistent with previous research stressing the significance of teachers' intentional choices in fostering generic skills.¹⁰⁵ In particular, the significance of guidance and feedback for course participants corresponds with previous evidence that IBL's effectiveness depends on appropriate guidance.¹⁰⁶ These results also align with the experience of authors Mielityinen and Fifield as the course teachers: as depicted above, the pedagogical model of the course was chosen deliberately and executed carefully. Thus, though IBL model has many advantages as such, teachers' choices in the implementation do matter.

RQ2: Interrelations between experiences of learning generic skills, self-efficacy beliefs and sense of belonging

Self-efficacy beliefs correlated positively with communication skills but not with other skills. This may suggest that effective communication fosters law students' confidence; on the other hand, a student who trusts one's own capabilities and thinking may well be more willing to share and discuss ideas with fellow students, strengthening the correlation between self-efficacy and communication skills. In addition, outspoken students may have assumed central roles in their respective teams, adding to their sense of capability. Overall, further research is needed on this. Sense of belonging did not correlate with other variables.

RQ3: Learning generic skills onsite and online

The development of generic skills did not differ significantly between onsite and online students (Table 3). This is an interesting finding, and somewhat in contradiction with the experiences of Carpenter, Koch and Stubbs on the online

¹⁰⁵ Mui Yu and Boulton-Lewis (n 72).

¹⁰⁶ Ard W. Lazonder and Ruth Harmsen, 'Meta-analysis of Inquiry-based Learning: Effects of Guidance' (2016) 86 *Review of Educational Research* 681.

transition of inquiry-learning.¹⁰⁷ It also challenges concerns about the quality of online legal education.¹⁰⁸

Qualitative results discussed above suggest that clear instructions and structured process enabled successful teamwork for all students, including those online. As described in Table 4, twelve students referred to teamwork as advancing their generic skills. Seven of these responses were made by online students. They referred for example to gaining ‘substantial knowledge and skills related to working remotely in a team’, to ‘the inspiring atmosphere and active work of the team’, to ‘finding a common solution regardless of the differences of opinion’ and to appreciating the ‘variation to only studying remotely alone’.

It is not possible to claim that the teamwork experience was similar regardless of the attendance mode. In light of the response rate (66 per cent), it is possible that the respondents’ experience was on average better than among all course participants and that many unsatisfied online students did not respond at all. Some possible differences between onsite and online attendance may not be present in our data. For example, if a student group faces difficulties during a course, the online groups or students may have a higher threshold for voicing their concerns to the teachers, affecting their course experience. In addition, online teams typically require more coordination, as their members often have work and family obligations affecting their schedules. On the other hand, the need to systematically book team meetings may positively contribute to team cohesion. Overall, the dynamics of teamwork onsite and online require further research.¹⁰⁹

Nevertheless, it is reasonable to conclude that for many students taking the course online, teamwork experience was of high quality. This corresponds with the discovery by Bugden, Redmond and Greaney in their survey on online collaboration in Australian legal education. In their study, the students reported

¹⁰⁷ Carpenter, Koch and Stubbs (n 18).

¹⁰⁸ Eg Nina A. Kohn, ‘Online Learning and the Future of Legal Education: Symposium Introduction’ (2020) 70 *Syracuse Law Review* 1; Kandace J. Kukas, *Expanding Access to Legal Education & Representation Through Distance Learning* (Northeastern University 2023) 17–18.

¹⁰⁹ Authors Mielityinen and Fifield have taught the course discussed in the article for several years. Each year, one or two student teams have required extra support in terms of group dynamics. However, on this basis it is not possible to determine whether the issues are more common in onsite, online or hybrid teams.

positive online collaboration experiences, enjoying working and learning with others, being able to reach shared viewpoints and being part of an active online learning community.¹¹⁰

To support pedagogical experiments, we provide a summary of practices with which the teachers aimed to enhance smooth teamwork of all students:

- Student teams were formed based on the students' mode of study and grade goals.
- To facilitate team cohesion, the student team members met each other and drafted a team contract during a workshop.
- In the workshops, comments from online students were encouraged by using online chat tools and by allowing them to present questions out loud.
- All teams, including the online groups, received equal guidance and support in the workshops. As one of the teachers guided groups at campus, the other discussed the issues online.
- In the course learning management system, each student team had its own preset Teams link for collaborating online between the workshops.
- The teachers arranged an extra voluntary guidance meeting online mid-course.
- The teachers provided guidance and discussions for teams with difficulties.

Overall, the results imply that online law students are, fortunately, not predetermined to learn less than their peers at campus. With careful course design, online studies may result in strong development of generic skills. This conclusion is supported by previous research demonstrating the effects of teachers' pedagogical practices on learning results. This finding also supports Corbin and Bugden's view about the importance of reflecting on the appropriate online legal pedagogy with support from learning theories.¹¹¹ At the same time, our analysis confirms the resource concerns raised in legal

¹¹⁰ Lisa Bugden, Patricia Redmond and James Greaney, 'Online Collaboration as a Pedagogical Approach to Learning and Teaching Undergraduate Legal Education' (2018) 52 *The Law Teacher* 85, 92–93.

¹¹¹ Lillian Corbin and Lisa Bugden, 'Online Teaching: The Importance of Pedagogy, Place and Presence in Legal Education' (2018) 28 *Legal Education Review* 1.

scholarship¹¹² – successful implementation of IBL requires considerable teacher effort.

RQ3: Self-efficacy beliefs onsite and online

The students' scores on self-efficacy beliefs were high regardless of whether they studied onsite or online (Table 3). This finding may reflect both groups' positive experiences in learning generic skills, and their prior studies. As the course was taken on second semester, the students had already developed their study skills, supporting confidence. In addition, the finding may reflect the students' goals: many online students at the UEF Law School are open university students who aim at being accepted to a degree programme, thus reaching for high grades and, consequently, investing considerable effort to their studies. Taking into account the positive development of generic skills, these findings reinforce recommendations to apply IBL early in law studies.¹¹³

In research, traditional legal pedagogy in the US has been considered detrimental to the students' self-efficacy beliefs, while authentic learning tasks and constructive feedback have been recommended.¹¹⁴ Considering the pedagogical context of UEF Law School, the second semester law students' high scores on self-efficacy beliefs are in harmony with research. Their first-year studies have included a versatile set of pedagogical practices, from traditional lectures and exams to learning assignments, essays, reflective diaries and workshops. For many students, learning to study law does present challenges, but the pedagogical culture as such is supportive.¹¹⁵ As the respondents' score on self-efficacy was relatively high, they have a strong basis for continuing their law studies and progressing towards more challenging courses.

RQ3: Sense of belonging onsite and online

Students who had attended teaching onsite had significantly higher scores on sense of belonging than the students who had completed their first-year studies remotely (Table 3). This reflects the context. Many online students live permanently outside the university town and rarely visit campus, as most

¹¹² Sylvester (n 16); Carpenter, Koch and Stubbs (n 18).

¹¹³ Sylvester (n 16); Hall (n 12); Carpenter, Koch and Stubbs (n 18).

¹¹⁴ Christensen (n 70); Palmer (n 71).

¹¹⁵ On versatile and student-centred pedagogy as a strength of UEF Law School, see Mähönen and others (n 90) 128–129.

classes are voluntary, teachers often provide hybrid or recorded lectures, and many exams do not require presence at campus. This naturally affects their social connections and weakens their sense of belonging to the university.

Our finding about the online students' weaker sense of belonging is consistent with previous Norwegian research on the significance of positive social learning environment for the law students' sense of belonging.¹¹⁶ In addition, the finding is similar to a UK survey on the mental well-being of online LLB students, which refers to the online law students' need for a greater sense of relatedness, as well as to their desire for further support, encouragement and community.¹¹⁷

The Norwegian study also indicated that the students' sense of competition among fellow students weakens their sense of belonging.¹¹⁸ This factor may also be present in our context, since at UEF Law School studying at campus is much more common among students already accepted as degree students. Respectively, the percentage of students who need to gain excellent grades to succeed in the admissions process via open university is higher among online students. The students' awareness of this may lead to a heightened sense of competition, weakening their sense of belonging. As our data do not include personal information about the students' background, it does not allow discussion about possible minority-related differences in the students' sense of belonging.¹¹⁹

UEF Law School has made a deliberate choice to support accessibility of legal education for a diverse student body around Finland.¹²⁰ Our results indicate the benefits and risks involved. The Law School has been able to develop high quality pedagogical practices for hybrid courses, allowing all students to learn well – even those who do not live near campus and attend classes online. Well-structured hybrid courses enable strong learning and self-efficacy for all students, even those online.

However, online students' sense of belonging is weaker. According to research, this may lead to a heightened risk of fatigue and slower study progress. Thus,

¹¹⁶ Uehara and others (n 24).

¹¹⁷ Jones, Samra and Lucassen (n 63) 67.

¹¹⁸ Uehara and others (n 24).

¹¹⁹ Quintanilla and Erman (n 65); Bodamer (n 65).

¹²⁰ Mähönen and others (n 90) 131.

it is recommended to support the online students' belonging and engagement with deliberate steps. Naturally, the setting is contextually nuanced. For many law students at UEF Law School, online studies provide a highly valuable gate to a new degree and a career shift which would not be feasible otherwise, given their family and occupational conditions. For them, belonging to the university may not be as relevant as for other students. They may be able to create connections with the legal profession in other ways, such as by taking part in activities of the lawyers' associations. Overall, discretion is called for in determining appropriate conclusions and actions.

Limitations

The quantitative analyses are subject to several limitations. First, the sample size was small, which reduces statistical power and limits the robustness of the findings. Second, the data were drawn from a single course within one university, which restricts the contextual variability of the study. Third, the study is based on students' self-reports. Due to these constraints, the results should not be generalised beyond this specific setting. This applies as well to the qualitative interpretations.

The course studied has been developed in small steps during several years. Thus, a controlled test between different pedagogical models would not have been possible by comparing data from two successive implementations of the course. Organising a control group during the same academic year was not feasible, partly because the number of attendees would have been low in the experimental and control groups and partly since running the course simultaneously with two different pedagogical models would have required more resources. The use of pre- and post-tests for ascertaining the effects of the pedagogical model would have been unreliable, as the students were attending also other courses simultaneously. Naturally, the lack of control group or pre- and post-testing must be taken into consideration when interpreting the results. These limitations related to the study design are quite common in research of active learning.¹²¹

¹²¹ Hartikainen (n 11) 69–70.

Conclusion

This study has explored the development of law students' generic skills in inquiry-based learning, as well as the interrelations between generic skills, self-efficacy beliefs and sense of belonging. In addition, we have analysed the association between students' mode of attendance and their experiences, comparing those studying law onsite and online. The data were collected through a survey from a hybrid first-year law course at a Finnish law school.

According to our findings, the students' critical thinking, collaboration, communication, and self-regulation skills developed successfully in the IBL course. All the skills correlated positively to each other. Students' scores on self-efficacy beliefs and sense of belonging were also high. Students participating in the course onsite had higher scores on sense of belonging compared to the online students. Students' experiences of learning generic skills or self-efficacy beliefs did not differ by their mode of attendance. Several aspects of inquiry-based learning were considered useful for developing generic skills, including teamwork, research-oriented activities and interaction.

The contribution of our study is threefold. First, the study demonstrates the feasibility of inquiry-based learning as a successful pedagogical model for developing law students' critical thinking and other generic skills. This may be especially relevant now, as the emergence of AI tools has sparked discussion on how to guarantee the development of fundamental legal and human skills of future lawyers. Second, by providing a detailed model of the course and the choices involved, the study encourages further applications of IBL in legal education. Our results testify to the significance of pedagogical choices, reminding law teachers and law schools about the importance of pedagogical skills and didactic discretion. Thirdly, our detailed findings concerning, for example, the learning results and sense of belonging onsite and online call for further research on the contextual factors affecting the student experience in inquiry-based learning.