# Beyond the Ivory Tower: Teaching Non-Rational Knowledge to Business Students and Practitioners

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**Abstract:** Recent publications in the field of KM emphasize the importance of topics such as Spirituality (e.g. Bratianu, 2017; Kaiser, 2023; Rocha & Pinheiro, 2021), Phronesis (practical wisdom) (Kragulj, 2022; Nonaka & Takeuchi, 2019; Rocha et al., 2022; Serenko, 2024), Organizational Purpose (Kerschbaum, 2022), dealing with future potentials and future-oriented innovation (Peschl, 2018, 2020) and Responsible KM (Durst, 2021) as future avenues for KM research. However, it seems that these topics have not yet entirely found their way into practice, or, although the phenomena described are inherently present in organizations, they do not receive much attention from practitioners these days. With this paper we seek to initiate discussion on how to deploy research results on topics like Spirituality, Practical Wisdom, non-rational Knowledge, future-oriented knowledge work, and Organizational Purpose into applied contexts. We argue that an essential step is to adequately train students at universities with the new content. Todays students are the leaders, entrepreneurs, and managers of tomorrow. Therefore, we present selected educational concepts that help students build competencies in understanding and applying non-rational forms of knowledge. The intention of these newly designed teaching concepts is to move our field of research out of the metaphoric ivory tower towards the application in organizations. We argue that this is a necessary step for the development of the field of KM, enabling our research to remain relevant in modern-day business and organizational environments.

**Keywords:** Non-rational Knowledge, Phronesis, Practical Wisdom, Spirituality, Future Orientation, Management Education

## 1. Introduction

The field of Knowledge Management (KM) has recently been facing somewhat of a decline in popularity (Davenport, 2015). Arguably, this development has begun with the rise of ever-so-efficient web search technologies and culminated in the widespread application of artificial intelligence, which started to be accessible to everybody who knows how to operate a personal computer. However, although successful in addressing clear and defined problems, rational-analytic problem-solving methods face challenges when applied to ambiguous or ill-defined problems, indicating also the need for different approaches in KM (Kragulj *et al.*, 2018). As a result, we believe in a renaissance of Knowledge Management at its core, which has made it a social science endeavor (Nonaka and Takeuchi, 1995): tacit knowledge. This renewed interest in the manifold types of non-codified and subjective knowledge has led to new topics in KM, such as spirituality (e.g. Bratianu, 2017; Rocha and Pinheiro, 2021; Kaiser, 2023), phronesis (practical wisdom) (Nonaka and Takeuchi, 2021; Rocha, Kragulj and Pinheiro, 2022; Kragulj, 2023), organizational purpose (Kerschbaum, 2022), dealing with future potentials and future-oriented innovation (Peschl, 2018, 2020) and responsible management (Durst, 2021). Moreover, the focus on non-rational knowledge (Warren, 2008) signals a shift from a mere analytic-rational understanding towards a deeper, more nuanced engagement with knowledge. For instance, Serenko (2024) recently published the first large-scale empirical study of practical wisdom (phronesis) in KM, reigniting the discourse surrounding the significance of practical wisdom in work environments (Serenko, 2024). Consequently, the traditional understanding of explicit and implicit knowledge has long been dissolved and expanded into a more holistic definition of KM (Peschl, Kaiser and Fordinal, 2023).

For this new wave of knowledge management to be effective in organizational practice, universities are key to helping students understand forms of non-rational knowledge and their relevance to real-world problems, shaping the behavior and attitudes of future leaders, entrepreneurs and managers. This aligns with universities' primary goal of growing students' skills and preparedness for real-world organizational learning environments while simultaneously being forced to adapt to an ever-changing environment rapidly (Brewer and Brewer, 2010). Effectively sharing knowledge to create a lasting learning impact requires innovative and diverse teaching

strategies that create personal and emotional engagement, promoting reflection-in-action as well as active learning involvement amongst students (Kragulj *et al.*, 2018). To promote learning and the cultivation of skills, Bratianu and Vatamanescu (2017) propose supplementing lectures with practical activities such as simulations, gaming, or real-world projects, which enhance the tacit knowledge base (Bratianu and Vatamanescu, 2017).

In an earlier contribution, we reported on the importance of teaching students feasible ways to deal with unstructured, ill-defined problems. There, we used the Design Thinking Framework to equip students with creative strategies for problem-solving, enabling them to integrate theories of Organizational Learning and KM into live case studies provided by business partners (Kragulj *et al.*, 2018). With this contribution, however, we aim to go a step further and reflect on the types of knowledge required to engage in contemporary challenges of KM and how we can convey them to students utilizing innovative course designs. By doing so, we extend the existing body of knowledge in the field of KM by introducing innovative didactic approaches that convey the mentioned new types of knowledge. After providing a theoretical background on management education in terms of the relevant knowledge, the paper presents three examples of course/curriculum designs and summarizes the findings and implications in the final section.

## 2. Theoretical Background

Typically, study programs in business and management emphasize formal learning and qualification (Adams & Ingersoll, 1990; Schön, 1987). It is considered important to know, understand, and be able to apply well-known models of prominent management thinkers, as well as to be able to read, understand and interpret a balance sheet. While these things are undoubtedly important, there exists somewhat of a counter-movement, whose proponents argue that management is more about tacit knowledge of organizations than about technical-rational analytical thinking and that managers can benefit from cultivating non-rational forms of knowledge in decision-making in order to foster more sustainable and responsible business practice (Hedlund *et al.*, 2003; Schaltegger and Wagner, 2011; Bas, Sinclair and Dörfler, 2023). As early as in the 1930s, management theorist Chester Barnard wrote that in addition to its rational, analytical component the process of management is characterized by “the sensing of the organization as a whole and the total situation relevant to it” (Barnard, 1938, p. 123). Accordingly, management may rather be a matter of art than science (Barnard, 1938). In line with Mintzberg’s concise formulation that we need managers, not MBAs (Mintzberg, 2004; Chia, 2005), we were looking for course designs that would build students capacity to manage in between the lines of formal theories and tools. An essential requirement resulting from the tacit nature of the knowledge we aim to teach, is that respective course designs must enable experiential learning. Following Polanyi (1966), tacit knowledge can only be acquired through direct, personal, and often sensory-based experience within the learning context (Polanyi, 1966). In addition to direct experience, participants need reflective practice to acquire knowledge (Schön, 1987). In this regard, the university setting allows for the unique opportunity to incorporate both direct experience as well as reflection-in-action and reflection-on-action in a safe learning environment and under the supervision of methodically and substantively experienced lecturers. Such course designs can incorporate elements of problem-based-learning that introduce the students to complex real-world problems in order to develop their problem-solving and self-directed learning skills (Savery, 2006). Yet, it appears that university education often falls short of these goals and relies heavily on the teaching and assessment of explicit knowledge. This is partly due to the lack of well-developed teaching concepts for spiritual KM, practical wisdom, responsible KM, and future-oriented thinking. With our contribution, we aim to address this gap by presenting blueprints for teaching these concepts. By doing so, we provide an initial basis for discussion and pave the way for the integration of non-rational knowledge into university- and vocational education.

According to the criteria described above, we will progress by presenting three course- or curricular designs and our experience and learnings from them. All courses were initially designed against the background of conveying non-rational forms of knowledge, ideally from both an analytical perspective, i.e. understanding what types of knowledge are in use (know what) and an applied perspective, i.e. learning by doing, experimenting and reflecting the students' learning experience. The courses were part of different study programs held at two Austrian universities and a c-VET training program delivered by an international Erasmus+ consortium. One university is a large public business university focusing on business and economics, and the other is the country's largest public university offering a wide variety of study programs.

We first evaluated the courses on the basis of formal evaluations, according to the respective formats that each institution suggests. Those evaluations partly include Likert-scale questions and also written answers to open questions. The formal evaluation was complemented by verbal feedback that we received from students during

and after class as well as insights from the reflection exercises within the courses. The c-VET training program reported is about to be piloted and has not yet been evaluated by the learners.

## 3. Course Designs

In the following we will give the reader a detailed picture of the respective course or curriculum designs.

### 3.1 Course: "Knowledge, Wisdom and Innovation"

This course is part of a specialization program titled "Knowledge Management" at a public business university. Undergraduate students have to choose up to two specialization programs from around 35 available options. Each specialization program consists of five courses with 4 ECTS points each. The respective course "Knowledge, Wisdom and Innovation" is the follow-up course to the introductory course "Knowledge-based Management" within the KM specialization. It can, therefore, be expected that students have already acquired basic competencies in KM and organizational learning. In total, each semester 16 students take part in this course.

#### *3.1.1 Content and aim of the Course*

The course "Knowledge, Wisdom and Innovation" targets students who enjoy interdisciplinary thinking and are open to exploring "non-mainstream" content from arts, literature, philosophy, and theology, which can be considered extraordinary for a business university.

The concept of this course is to address the topic of wisdom in a collaborative learning lab and try to learn and discover step-by-step how wisdom can be integrated and fostered in organizations and companies. Questions addressed within the course include: What is wisdom in general and can wisdom be "learned"? What processes help us to make wise decisions in companies and organizations? How can we recognize the effects of wise decisions? What is the connection between wisdom, knowledge, and innovation? And how can insights in the field of wisdom from entirely different disciplines (art, literature, biology, philosophy, theology, etc.) help us make wise decisions in business and our personal lives?

The goal is to convey to the students contemporary research in wisdom, innovation, and organizational learning, including current approaches and discourses in various fields of wisdom research, dealing with interdisciplinarity and applying the acquired knowledge in practice, including the reflection of its impact.

The course content is taught within an open classroom environment driven by situational questions. Presentations and input from the lecturers, exercises, and project work in small groups as well as discussions and reflections in plenary sessions allow the defined learning objectives to be achieved.

#### *3.1.2 Structure of the Course*

The course consists of a theoretical part and a practical part. The central idea is to teach students a few selected concepts of wisdom in the theoretical part so that they can then apply them in a case study. This only works if the theoretical part includes a few specific exercises. As the entire course only covers 4 ECTS credits, we had to make a selection of wisdom concepts that we teach in the theory part. Hence, we decided to focus on the following wisdom-related aspects:

- The multi-layered nature of knowledge in the late modern age and the shift towards an information age
- Egyptian wisdom, also known as Ma'at
- Plato's philosophical ethics which is deeply rooted in the idea that virtue and knowledge are inseparably linked
- Chapter 13 of the Nicomachean Ethics by Aristotle which explains the practical importance of prudence and wisdom.
- Wisdom, education and science. The complex relationships between wisdom, education and science are briefly examined, as considered by philosophers such as Nietzsche and Hegel.
- A short introduction to the wisdom literature of the Hebrew Bible
- Ina Roesing's wisdom triangle which is a concept that places wisdom in the context of essentiality, meaning and value.
- The aspect of resonance in the context of wisdom inspired by Hartmut Rosa

In the practical part of the course, we used a live case study of a consulting and training company that had to decide on its further development. The students worked in small groups and not only had to solve the case and try to make wise decisions in various situations in the company concerning further development but also had to justify their decisions in detail and transparently. They were asked to explain which concepts of wisdom they used as a basis for their decisions and how they applied them to the specific case. The students presented their findings in a plenary session and then critically discussed them with the lecturers. The results were compelling and exceeded the expectations of the lecturers. Almost all students not only made interesting and creative suggestions for the company's decision-making situations but were also able to link their decisions very well with the concepts of wisdom they had learned in the theory section.

#### *3.1.3 Evaluation of the Course*

Students evaluation at the end of the course revealed impressive results. 100 % of the participants indicated that they would recommend this course to their colleagues, 91 % rated the ratio between theory and practice as the highest possible. 100 % of the participants mentioned that the practical part of the course was an added value for them and 83 % of participants rated the course as helpful for their professional future.

In two open questions, we asked what was particularly positive about the course and what should be improved. What impressed the students the most was the fact that the content of this course was completely different from any other course offered at a business university. Furthermore, most students emphasized that the content of the course also touched them personally and encouraged them to reflect on aspects of their own lives. This finding was underlined by several personal conversations and questions between some students and the lecturers at the end of the final exam. On the other hand, the students argued that the course content was not easy to understand because the wisdom approaches were new and unfamiliar to them. This is precisely why good course materials (slides, handouts, etc.) are essential.

### 3.2 Curriculum: “Co-Creating and Enacting Future Purpose Through Future-Oriented Innovation”

The following educational design is based on Otto Scharmer's (2016) concepts of "learning from the future as it emerges" and Emergent Innovation (Peschl and Fundneider, 2017; Peschl, 2020). It is a transformative and future-oriented approach to innovation that is centred around the Theory U framework (Scharmer, 2016), anticipation and futures literacies (Miller, 2015, 2018; Poli, 2021; UNESCO, 2021), as well as dealing with self-transcending knowledge (Scharmer, 2001), future purpose and making use of future potentials (Glaveanu, 2022). These approaches propose that the most important sources of innovative change do not come primarily from traditional data, trend analysis, design thinking methods or extrapolation from past knowledge; rather, they claim that (radical) novelty arises from deep and mindful engagement with the world and its possibilities that are unfolding in the present moment and directing towards an emergent future purpose. In that sense, innovation is not brought into being by materializing our own creative ideas in the world in a hylomorphic manner (e.g. Ingold, 2013, 2014); rather, future is co-created by integrating the creative agency of the creator’s mind with the creative agency of the world by enacting both the cognitive system and its environment (Newen, Burin and Gallagher, 2018; Gallagher, 2023; Hutto, 2023).

#### *3.2.1 Content and aim of the Curriculum*

Compared to classical innovation strategies (e.g. Chen, Brem and Wong, 2019; Tidd and Bessant, 2020), such a radically future-oriented and purpose-driven approach to innovation involves alternative forms of socio-epistemic processes (e.g., knowledge about potentials and future purpose, self-transcending knowledge [e.g., Scharmer, 2001], dialogical social formats, etc.). Consequently, one needs to develop strategies of how to deal with these forms of knowledge and how to “teach” necessary alternative (epistemic and social) skills and mindsets supporting them. That is why we designed and implemented a so-called extension curriculum entitled “Innovation and Knowledge Creation: How novelty comes into the world”[1]. It is a 15 ECTS “mini curriculum” that is open to bachelor students from all disciples and comprises 3 courses (see below).

The primary objective of this curriculum is to foster processes and capabilities of collaborative knowledge creation as well as futures literacies (Miller, 2015, 2018; Ehlers and Eigbrecht, 2024). The goal is to develop an innovation (project) that culminates in the realization of a tangible prototype over the course of the semester.

[1] https://innovation.univie.ac.at/

Admitting students from various disciplines promotes diversity, which in turn stimulates different perspectives, knowledge cultures, and creativity. This curriculum is designed in a project-based and open-ended manner encouraging and promoting group work, interdisciplinary interaction, collaboration, self-reflection, as well as challenging students' assumptions and beliefs.

The instructors' self-conception rests on the belief that they do not offer definitive or "true" knowledge or solutions. Instead, they prioritize guiding and facilitating the innovation process while providing an enabling learning environment ("enabling spaces", Peschl and Fundneider, 2012, 2014). They focus on establishing an atmosphere of trust and appreciation, creating a setting in which students independently collaborate in groups to develop their own perspectives, arguments, and innovation concepts/projects.

### *3.2.2 Structure of the Curriculum*

The curriculum is organized around an innovation process that is based on Scharmer's (2016) Theory-U and Emergent Innovation (Peschl, 2020). It is structured as a sequence of interlinked and recursive phases, workshops, and class events. Formally, it is organized as 3 courses: (i) a lecture providing theoretical foundations, (ii) a course bridging theoretical and practical topics, and (iii) an "innovation atelier" where students have to work practically on an innovation project. These courses are closely interwoven and teach both theoretical knowledge and practical skills (including innovation attitudes) over the course of a semester.

Between these courses in-person events, workshops, and coaching sessions are provided for the innovation teams, which serve as a forum for receiving feedback, asking in-depth questions, and discussing social issues within the group with the instructors. The most important phases of the innovation process are described below. Further details can be found in Peschl *et al.* (2014) and Hartner-Tiefenthaler *et al.* (2018).

In the first phase, students identify a personally meaningful question and develop their topic of genuine interest. This fosters personal engagement throughout the process. After reflecting on hidden assumptions, students form Knowledge Creation Teams (= KCTs) around shared interests using semantic mapping techniques. They then enter a phase of deep observation, exploring their chosen field through mostly qualitative methods, such as ethnographic observation, generative interviews, or desk research. Afterwards, insights are discussed in a world café (Brown and Isaacs, 2005) and dialogue setting, enabling participants to challenge, reflect, and integrate diverse perspectives, fostering creative synthesis.

Students then enter the presencing phase (Scharmer, 2016), spending a day in nature to encourage new ideas in a silent, distraction-free environment. They suspend their own ideas and engage in a process of "listening to what wants to emerge," encountering future potentials and novel knowledge. The insights gained are then shared within the KCTs, where initial intuitions and concrete ideas for an innovation artifact or prototype begin to crystallize. During iterative prototyping and coaching, ideas are refined, implemented, or discarded in a fast cycle learning process, leading to a final prototype. Finally, this prototype is presented in class, receiving feedback from instructors and peers. At the end, the KCTs and the whole class reflect on the entire knowledge creation process, discussing both theoretical and experiential insights.

### *3.2.3 Evaluation of the Curriculum*

This curriculum was accompanied by a multi-year research project by using mostly triangulation of qualitative and quantitative methods, focusing primarily on qualitative approaches to describe how new knowledge emerges in a future-driven manner (see Peschl *et al.*, 2014, 2019; Hartner-Tiefenthaler *et al.*, 2018). In the instance evaluated in the research project, a total of 30 students participated, including both PhD and Master's students.

Based on diary entries, observations, personal conversations, and group reflections, several key socio-epistemological aspects for this knowledge creation process leading to innovations were identified. These include social and personal identity, individual and group mindsets, decision-making, emotions, course design impact, and the transition from uncertainty to clarity. Basic ground values such as trust and respect turned out to be essential for fostering an innovative and enabling learning environment; they were crucial for providing a "safe space" and effective group dynamics. Fairness ensured equal engagement and valuing individual contributions. This led to (epistemic) openness and curiosity driving creative thinking and being led by future potentials.

Uncertainty played a significant role in the innovation process, initially causing discomfort but ultimately driving creativity and knowledge creation. Effective coping strategies included personal and emotional involvement,

creating a playful atmosphere, and enjoying group interactions. High-performing groups exhibited intrinsic motivation, taking collective responsibility for their projects and engaging deeply in the creative process, often planning to continue their work beyond the course. In contrast, low-performing groups struggled with internal conflicts and lacked cohesive responsibility, highlighting the importance of shared commitment for successful innovation. Although it was a challenge at first, students appreciated that their creative autonomy was taken seriously and that they had to take a great deal of responsibility for their own innovation process.

## 3.3 Curriculum: "Cultivating Phronesis for Practically Wise Entrepreneurial Decision"

According to Bachmann et al., "practical wisdom can be a source for integrating the multifarious social, moral, cultural, and environmental realities and challenges that business has to meet" (Bachmann, Sasse and Habisch, 2018, p. 126). The concept of practical wisdom (phronesis) originates with Aristotle who defines it as an intellectual virtue rooted in a person's character that "is a true state involving reason, concerned with action in relation to human goods". After reviewing more recent literature on practical wisdom, we can differentiate the concept, namely in relation to the phronimos, i.e., the practically wise person, in three different ways: such a person can 'be' phronetic, they 'have' phronesis, or they 'act' practically wise. While the first notion aligns with the perspective of phronesis as a personality trait, the latter point at its quality of being a learnable skill or behavioral pattern over time (Kragulj, 2023; Rocha, Pinheiro and Kragulj, 2024). This aligns with the argument that 'good' decision-making stems from managerial experience (c.f. tacit knowledge) more than from applying universal management rules (c.f. explicit knowledge) (Thomassen and Jørgensen, 2021). From this ontological point of view, it seems particularly important to systematically cultivate practical wisdom and develop a praxis of 'good' decision-making. To this end, providing learning environments that leverage practical decision-making (e.g., moral dilemma or case study) as the 'learning vehicle' to cultivate practical wisdom (phronesis) seems promising. In this way, learners can build their decision-making skills for business sustainability and responsibility (Melé, 2010).

### *3.3.1 Content and aim of the Curriculum*

The "Wise Up to Succeed" Erasmus+ project[2] aims to strengthen the decision-making competencies of business successors by cultivating their practical wisdom (Kragulj *et al.*, 2024). In continuous vocational education and training (c-VET), it pioneers in converting our conceptual understanding of practical wisdom (phronesis) into education practice. The project leverages the perspective of phronesis as being a skill that manifests in action. In building practical wisdom in managers, decision-making is considered the focal point (i.e., action) of learning and applying.

The core of the project is an educational framework (Kragulj et al., 2024) that aligns with the Principles of Responsible Management Education (Storey, Killian and O'Regan, 2017) and is substantiated by three key theories on critical pedagogy and social development: Freire's (1970) Pedagogy of the Oppressed, Piaget's (1983) cognitive development theory and complimentarily Vygotsky's 'activity theory' (1986).

### *3.3.2 Structure of the Curriculum*

Derived from the educational framework, the project offers a curriculum and a blended training program (2 ECVET credits / 50 working hours) on wise decision-making for business successors. These target six skills of practically wise business successors, which inform current decision-making (Kragulj *et al.*, 2024):

1. Phronetic business successors think future-oriented and plan strategically. Adopting a future perspective, they think long-term and anticipate the consequences of their decisions.
2. They critically reflect on past failures and successes to understand the legacy of their organization, both from a within and outside perspective.
3. They take a holistic perspective on a decision situation. This is to realize the "social, cultural, ecological and ethical complexity and interdependence in which they have to make their decisions".
4. They "seek an in-depth analysis of the decision-making situation" at hand. They understand the particular circumstance of this situation and consider the "subjective influences on a decision-making situation".
5. They gain from the experiences of peers. They can transfer what they have learned to their own field.

[2] https://www.wiseup2succeed.eu

6. They have an open mind in their thoughts and actions. In this way, they can deal with ambiguity in complex environments using a wide behavioral repertoire.

**Table 1: Learning Perspectives and Axis (Kragulj *et al.*, 2024).**

| Axis | Learning Perspective | Short Description |
|---|---|---|
| "Time: Vision and Reflection" | "Viewing Ahead" | Envisioning the future outcomes of a decision, anticipating future developments, and, complementarily, shaping future scenarios that are desirable and normative. |
| "Time: Vision and Reflection" | "Viewing Backwards" | Reflection on personal and others' experiences (success and failure) involving thorough analysis. |
| "Locus: Ego and Eco Transcendence" | "Viewing from Above" | Understanding the ecological complexity, embeddedness, and interconnectedness of cause-and-effect relationships beyond the decision situation; awareness of the influence of overarching ecosystems and their impact. |
| "Locus: Ego and Eco Transcendence" | "Viewing from Below" | Empathy and understanding of stakeholders' contexts, comprehending diverse perspectives, and sensing the social and situational aspects of the decision-making situation. |
| "Ethos: Peer Learning and Inspiration" | "Viewing Near" | Interdisciplinary learning from peers by engaging with their experiences and wisdom, using these insights as a valuable resource. |
| "Ethos: Peer Learning and Inspiration" | "Viewing Far" | Creativity and open-mindedness toward alternative decision-making approaches; engaging with the practices of professionals from other fields. |

The training program implements the educational framework. As a blended format, it comprises six online learning units (reflecting the six learning perspectives) for individual learning and an on-site workshop for peer learning. It draws from six learning perspectives organized along three axis (see Table 1).

The six online learning units consist of pre-recorded lectures that introduce concepts or methods, outline their relevance to the context of the target group, and provide examples, as well as ad-hoc and long-term tasks and quizzes to anchor what they learned in their own decision-making practice. In the peer workshop, business successors from different industries but at the same career stage (i.e., business succession) apply the learning perspectives to decision-making situations that reflect moral dilemmas in teams. By applying the concepts and methods provided in the decision-making process, learners can gain experience and cultivate their practical wisdom. In conclusion, the project aims to improve the decision-making skills of business successors for more sustainable and responsible business management. This group has been largely neglected in the literature despite its importance to the European business landscape (De Freyman and Durst, 2023). In particular, the training program provides young entrepreneurs with tools to methodically substitute the decision-making experience of their predecessors, which is commonly seen as an important source of practical wisdom. The training program is being piloted in a consortium of three European universities in different countries. The results of the evaluation are expected later this year.

## 4. Conclusion

Recent contributions highlight that a considerable branch of knowledge management is shifting towards non-rational forms of knowledge. Increasing demand for and interest in topics such as practical wisdom, spirituality, organizational purpose, and responsible (knowledge) management requires respective means to acquire such knowledge. Academia, on the other hand, is in charge of teaching non-rational forms of knowledge to future practitioners. We argue that incorporating experiential learning, collaborative knowledge creation, and reflective practice in course designs is crucial for effectively conveying those tacit types and non-rational forms of knowledge to students. Accordingly, we have developed three different course designs that apply these principles and evaluated them with regard to students' learning experiences and the emergence of new knowledge. Results show promising outcomes in terms of students' engagement and intrinsic motivation to learn. In particular, the element of creative autonomy was very well received by students. We also noticed that mutual trust and respect were essential to facilitate an enabling learning environment. The lecturers in such settings must create and uphold a "safe space" in which experimentation can take place, and mistakes are seen as a necessary and inevitable part of learning. In comparison, non-rational knowledge requires more open and less structured tasks than rational-analytic knowledge, which can be challenging for some students because it confronts them with the discomfort of uncertainty that may lead to internal conflicts and a lack of responsibility if the situation is framed incorrectly or insufficiently by the lecturer. Overall, through these first attempts of teaching non-rational, future-oriented types of knowledge, we seek to contribute to knowledge management education by firstly emphasizing the need to bring forth non-rational types of knowledge into practice and, secondly, providing initial cues on how to design respective formats to educate people in practically wise decision making, spirituality, and innovation through self-transcending knowledge.

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## References

Bachmann, C., Sasse, L. and Habisch, A. (2018) 'Applying the Practical Wisdom Lenses in Decision-Making: An Integrative Approach to Humanistic Management', *Humanistic Management Journal*, 2(2), pp. 125–150.

Barnard, C.I. (1938) *The functions of the executive*. Harvard university press.

Bas, A., Sinclair, M. and Dörfler, V. (2023) 'Sensing: The elephant in the room of management learning', *Management Learning*, 54(4), pp. 489–510.

Bratianu, C. (2017) 'Emotional and spiritual knowledge', *Knowledge and project management: A shared approach to improve performance*, pp. 69–91.

Bratianu, C. and Vatamanescu, E.-M. (2017) 'Students' perception on developing conceptual generic skills for business: a knowledge-based approach', *VINE Journal of Information and Knowledge Management Systems*, 47(4), pp. 490–505.

Brewer, P.D. and Brewer, K.L. (2010) 'Knowledge Management, Human Resource Management, and Higher Education: A Theoretical Model', *Journal of Education for Business*, 85(6), pp. 330–335.

Brown, J. and Isaacs, D. (2005) *The world cafe. Shaping our futures through conversations that matter*. San Francisco, CA: Berrett-Koehler.

Chen, J., Brem, A. and Wong, P.K. (eds) (2019) *The Routledge Companion to innovation management*. Oxon, New York: Routledge.

Chia, R. (2005) 'Book Review: The Aim of Management Education: Reflections on Mintzberg's Managers not MBAs', *Organization Studies*, 26(7), pp. 1090–1092.

Davenport, T.H. (2015) 'Whatever Happened to Knowledge Management?', *The Wall Street Journal*, p. 2.

De Freyman, J. and Durst, S. (2023) 'Business Transfer Paradox in Entrepreneurship Education: A research agenda for increasing the number of successors', *Journal of Innovation Management*, 11(2), pp. 1–21.

Durst, S. (2021) 'A plea for responsible and inclusive knowledge management at the world level', *VINE Journal of Information and Knowledge Management Systems* [Preprint].

Ehlers, U.-D. and Eigbrecht, L. (eds) (2024) *Creating the University of the Future: A Global View on Future Skills and Future Higher Education*. Wiesbaden: Springer Fachmedien Wiesbaden (Zukunft der Hochschulbildung - Future Higher Education).

Gallagher, S. (2023) *Embodied and Enactive Approaches to Cognition*. 1st edn. Cambridge: Cambridge University Press.

Glaveanu, V.P. (2022) 'Possibility studies: A manifesto', *Possibility Studies & Society*, 0(0), pp. 1–6.

Hartner-Tiefenthaler, M. *et al.* (2018) 'When relational and epistemological uncertainty act as driving forces in collaborative knowledge creation processes among university students', *Thinking Skills and Creativity*, 28(June 2018), pp. 21–40.

Hedlund, J. *et al.* (2003) 'Identifying and assessing tacit knowledge: understanding the practical intelligence of military leaders', *The Leadership Quarterly*, 14(2), pp. 117–140.

Hutto, D. (2023) 'Enactivism', *The Internet Encyclopedia of Philosophy, ISSN 2161-0002*, 2023.

Ingold, T. (2013) *Making. Anthropology, archaeology, art and architecture*. Abingdon, Oxon; New York, NY: Routledge.

Ingold, T. (2014) 'The creativity of undergoing', *Pragmatics & Cognition*, 22(1), pp. 124–139.

Kaiser, A. (2023) 'Spiritual Knowledge Management: Proposing a new approach and defining a Research Agenda', *Proceedings of the 56th Hawaii International Conference on System Sciences. Hawaii International Conference on System Sciences (HICSS)* [Preprint].

Kerschbaum, C. (2022) 'A beautiful strategy – bridging the gap between the (aesthetic) perception and (strategic) realization of the organizations purpose', *VINE Journal of Information and Knowledge Management Systems* [Preprint].

Kragulj, F. *et al.* (2018) 'Teaching Organizational Learning to Undergraduates: Applying Design Thinking in Problem-Based Learning', *European Conference on Knowledge Management (09): 414-422* [Preprint].

Kragulj, F. (2023) *Knowledge Management and Sustainable Value Creation: Needs as a Strategic Focus for Organizations*. 1st ed. 2023 edition. S.l.: Springer.

Kragulj, F. *et al.* (2024) 'Kragulj, F., Rocha, R., Durst, S., Pungartnik, K. (2024). Wise up to Succeed: An Educational Framework for Cultivating Practical Wisdom of Business Successors. EURAM-2024 European Academy of Management Conference', in *EURAM-2024 European Academy of Management Conference*.

Melé, D. (2010) 'Practical wisdom in managerial decision making', *Journal of Management Development*. Edited by M. Naughton, 29(7/8), pp. 637–645.

Miller, R. (2015) 'Learning, the future, and complexity. An essay on the emergence of futures literacy', *European Journal of Education*, 50(4), pp. 513–523.

Miller, R. (ed.) (2018) *Transforming the future. Anticipation in the 21st century*. Oxon, New York: Routledge.

Mintzberg, H. (2004) *Managers not MBAs: a hard look at the soft practice of managing and management development*. 1. paperback ed. San Francisco, Calif: Berrett-Koehler.
Newen, A., Burin, L. de and Gallagher, S. (eds) (2018) *The Oxford Handbook of 4E cognition*. Oxford: Oxford University Press.
Nonaka, I. and Takeuchi, H. (1995) 'The Knowledge-Creating Company', in *The Economic Impact of Knowledge*. Elsevier, pp. 175–187.
Nonaka, I. and Takeuchi, H. (2021) 'Humanizing strategy', *Long Range Planning*, p. 102070.
Peschl, M.F. *et al.* (2014) 'Learning how to innovate as a socio-epistemological process of co-creation. Towards a constructivist teaching strategy for innovation', *Constructivist Foundations*, 9(3), pp. 421–433.
Peschl, M.F. (2018) 'Shifting from collaboration with others to collaboration with the future in design and innovation processes', in DMI Design Management Institute (ed.) *Next wave. The21st dmi: Academic Design Management Conference Proceedings*. Boston, Mass: DMI, pp. 279–288.
Peschl, M.F. *et al.* (2019) 'The role of the shift from I-to-We and Theory-U in overcoming 21st century illiteracies', in O. Gunnlaugson and W. Brendel (eds) *Advances in Presencing (Vol 1)*. Vancouver: Trifoss Business Press, pp. 161–210.
Peschl, M.F. (2020) 'Theory U: From potentials and co-becoming to bringing forth emergent innovation and shaping a thriving future. On what it means to "learn from the future as it emerges"', in O. Gunnlaugson and W. Brendel (eds) *Advances in Presencing*. Vancouver: Trifoss Business Press, pp. 65–112.
Peschl, M.F. and Fundneider, T. (2012) 'Spaces enabling game-changing and sustaining innovations: Why space matters for knowledge creation and innovation', *Journal of Organisational Transformation and Social Change (OTSC)*, 9(1), pp. 41–61.
Peschl, M.F. and Fundneider, T. (2014) 'Designing and enabling interfaces for collaborative knowledge creation and innovation. From managing to enabling innovation as socio-epistemological technology', *Computers and Human Behavior*, 37, pp. 346–359.
Peschl, M.F. and Fundneider, T. (2017) 'Future-oriented innovation. How affordances and potentials can teach us how to learn from the future as it emerges', in W. Hofkirchner and M. Burgin (eds) *The future information society. Social and technological problems*. Singapore: World Scientific Publishing, pp. 223–240.
Peschl, M.F., Kaiser, A. and Fordinal, B. (2023) 'Enabling the Phronetically Enacted Self: A Path toward Spiritual Knowledge Management', *Sustainability*, 15(18), p. 13957.
Piaget, J. (1983) *Piaget's Theory, Handbook of Child Psychology*. Wiley.
Polanyi, M. (1966) *The tacit dimension*. Garden City, N.Y.: Doubleday.
Poli, R. (2021) 'The challenges of futures literacy', *Futures*, 132, pp. 1–9.
Rocha, R.G., Kragulj, F. and Pinheiro, P. (2022) 'Practical wisdom, the (not so) secret ingredient for responsible knowledge management', *VINE Journal of Information and Knowledge Management Systems* [Preprint].
Rocha, R.G. and Pinheiro, P.G. (2021) 'Organizational spirituality: Concept and perspectives', *Journal of Business Ethics*, 171(2), pp. 241–252.
Rocha, R.G., Pinheiro, P.G. and Kragulj, F. (2024) 'Organizational Practical Wisdom', in *Reference Module in Social Sciences*. Elsevier.
Savery, J.R. (2006) 'Overview of Problem-based Learning: Definitions and Distinctions', *Interdisciplinary Journal of Problem-Based Learning*, 1(1).
Schaltegger, S. and Wagner, M. (2011) 'Sustainable entrepreneurship and sustainability innovation: categories and interactions', *Business Strategy and the Environment*, 20(4), pp. 222–237.
Scharmer, C.O. (2001) 'Self-transcending knowledge. Sensing and organizing around emerging opportunities', *Journal of Knowledge Management*, 5(2), pp. 137–150.
Scharmer, C.O. (2016) *Theory U. Leading from the future as it emerges. The social technology of presencing*. second. San Francisco, CA: Berrett-Koehler Publishers.
Schön, D.A. (1987) 'Educating the reflective practitioner'.
Serenko, A. (2024) 'Practical wisdom in the workplace: conceptualization, instrument development, and predictive power', *Journal of Knowledge Management* [Preprint].
Storey, M., Killian, S. and O'Regan, P. (2017) 'Responsible management education: Mapping the field in the context of the SDGs', *The International Journal of Management Education*, 15(2), pp. 93–103.
Thomassen, A.O. and Jørgensen, K.M. (2021) 'John Dewey and continuing management education: problem-based learning for organizational sustainability', *Journal of Workplace Learning*, 33(3), pp. 229–242.
Tidd, J. and Bessant, J. (2020) *Managing innovation. Integrating technological, market and organizational change*. 7th edn. Chichester: John Wiley & Sons.
UNESCO (2021) *Learning to become with the world: education for future survival*. Paris: UNESCO (Futures of Education). Available at: https://unesdoc.unesco.org/ark:/48223/pf0000374032?fbclid=IwAR0YU-sJserzEoHPvkRHkYAYO1Eq_nyFjHmcH8Em0n4KJx0BZib4hP5bk8A (date of download: 07.12.2021).
Warren, S. (2008) 'Empirical Challenges in Organizational Aesthetics Research: Towards a Sensual Methodology', *Organization Studies*, 29(4), pp. 559–580.

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