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Narrative learning pathways in physical education teacher education

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Different curricular expectations and personal points of view by students intersect in higher education. These perspectives shape the rationale of academic subjects in reference to systemic and individual meanings. Against this backdrop and my previous teaching experiences in teacher education, I re-evaluated my concept for the course of “Personal development and movement education in sport” using a narrative approach to foster individualization and personal relevance. The revised concept provides three different learning paths leading through the courses’ subjects. Common ground is the idea of rational decision-making and reflective practice relating research, theory and physical education practice in light of the courses’ subjects. Each path establishes its individual nuance, rationale and narration. Key principles are the distinct narrative frameworks for subjects and the opportunity for choice—offering multiple meaning horizons and potentially providing individual learning pathways. Future evaluations will include personal relevance, need satisfaction and learning outcome to further develop this approach based on the students’ points of view.

KEYWORDS

teacher education, narrative learning, individualization, reflective practice, professionalism, physical education

1 Introduction

Teacher education confronts students with intersecting claims between science and future teaching practice. On the one hand, teacher education aims for professional competencies as future teachers; on the other hand, the university context requires skills based on academic criteria. From a systemic point of view, the internal logic and procedures differ between science and education (Luhmann, 2004, 2012). A *good final thesis* may not be evaluated emphasizing the question if it contains *good physical education*. In general, it is rated using scientific criteria. Vice versa and put in an exaggerated way, one rarely needs a specific citation style as a teacher in the gym. University teaching concepts interrelate both-sided claims promoting evidence-based professional teaching (Valcke, 2013) or reflective practice (Schön, 1983) for instance. However, students have to navigate these distinct criteria situationally throughout their academic development. The idea of professional and good physical education may guide one aspect of their reflective practice; other situations require scientific rigor in the first place.

In addition to these system-related nuances in teacher education, students bring in their personal viewpoints on their university, studies and courses (e.g., [Di Domenico et al., 2024](#)). For instance, in what way is research important for me? Does this data collection method align with my needs as student, researcher, future teacher, every-day life person? Do these theoretical insights shape my understanding of teaching in decisive ways? May this be an interesting aspect I could conduct my own research? Motifs may differ as well as individual backgrounds and narratives about the personal academic, professional, sportive identities. The sense of volitional learning and personal relevance is an important aspect for the engagement with learning tasks ([Vansteenkiste et al., 2018](#)) and situational attention ([Guo and Fryer, 2025](#)). However, autonomy in decision-making regarding one's learning path requires informed responsibility as well. Based on my personal experiences in teacher education curricular and personal relevance do not necessarily align in every situation.

Against this backdrop, I revised my instructional design for summer 2024 including small actualizations since then, giving students the choice to frame subjects in three different paths and narratives, following *The Path of the Researcher*, *The Path of the Teacher*, *The Path of the Explorer*, and, thus, choosing their own nuances for each topic. The following chapters present the key points of the instructional design, its rationale, implications and limitations. While student data are usually collected for teaching purposes in the course (e.g., course requirements), no personal student data were recorded or analyzed for this manuscript. The article describes the teaching concepts and only includes the author's general reflections and impressions. Hence, ethical approval was not required.

2 Pedagogical framework

2.1 Narrative learning and meaningful experiences

The pedagogical framework is backed by a narrative design to foster internalization. Narratives are an interdisciplinary term especially shaping social, cultural and literature sciences ([Abbott, 2020](#); [Ranke, 1967](#); [Shenhav, 2015](#); [Sugiyama, 2001](#)) and psychological research on identity and biography ([Adler et al., 2016, 2018](#); [Hammack, 2008](#); [McLean et al., 2020](#)). For instance, narratives are associated with the idea of organizing human experiences in a (social) world addressing a need for coherence ([McAdams, 2001](#)). Despite diverse definitions and methodologic frameworks, the concept describes specific relationships regarding subjective and/or social meaning. Against this backdrop, we operationalized narratives as representations of events structured by temporal, social, spatial and factual meaning dimensions in a recent study ([Bonn et al., 2025](#)). The analytical focus shifts toward the framework of meanings connecting these events within the representation. Events represent small analysis units of meaning-making and their contextualization in wider social environments.

This narrative approach raises the question of how to shape events such as instructions, tasks, problem-solving and more using well-directed frameworks of meaning in instructional designs. In higher education, the university as a wider context is important

but the analysis shifts toward the situational meaning imparted by the instructional design. What's the point in today's course: Design of motor tasks or precise research questions? And why does this point matter? The present concept addresses similar questions as the students are required to choose from different options. Their decisions have evident consequences for their learning pathway. This focus on meaningful actions is derived from gamified instructional designs. In this context, *meaningful play* is a key principle in game design that calibrates the impact of players' decision-making ([Schell, 2009](#)). Gamification as the "the idea of using game design elements in non-game contexts" ([Deterding et al., 2011](#)) may highlight the narratives shaping the learning design in order to foster motivation in higher education ([Körner et al., 2024](#); [Körner, 2024](#)). However, the design of narratives does not determine the personal relevance for individuals.

2.2 Internalization through choice of rationale

Personally perceiving learning activities as relevant is an important factor for motivation and engagement with tasks based on organismic integration theory ([Ryan and Deci, 2017](#)). Self-determination in motivation regulation is associated with wellbeing, effective learning and personal functioning ([Vansteenkiste et al., 2010, 2018](#)). The identification based on personal relevance and value is an important milestone for lasting learning activities that can be supported by need-supportive teaching. The experience of autonomy, competence and relatedness is positively associated with the internalization process (e.g., [Deci and Ryan, 2000](#)). However, a need-supportive teaching style needs to consider potential conflicts in need satisfaction. For example, open-ended active tasks bring in choice and exploration of solutions but may be perceived as overwhelming if lacking clear goal orientation. Therefore, autonomy-supportive teaching providing choice can benefit from clear expectations and guidelines in order to foster the feeling of competence ([Reeve and Cheon, 2021](#)), presumably for students in an early phase of their studies in particular. In addition, the perception of learning does not necessarily align with the learning outcome in higher education ([Deslauriers et al., 2019](#)).

3 Instructional design: choose your path!

3.1 Learning environment and format

3.1.1 Curricular context

The course "Personal development and movement education in sport" is part of the teacher education in module "Movement, play and sport as an educational dimension" at German Sport University Cologne. Based on the curriculum, the course consists of weekly presentational classes of 90 min and 30 h of self-regulated studies to prepare classes or for follow-up activities. The target group are students in the second or third semester of the bachelor's degree in physical education teacher education. Currently, attendance is mandatory based on the study program manual. The course is

conceptualized for 30 students. Beside this course, the module includes a lecture on basic aspects of sport pedagogy as well as practical classes in wrestling and fighting, and design, dance, performance.

The present course's topics are about personality development in sports, especially self-concept and the notion that humans actively engage and impact their environment in formal and non-formal contexts. The objectives for teacher education in physical education and this course in particular relate to the general guideline of *education for sport* and *education through sport* in German physical education curricula. Thus, the analysis of sport and physical education is directed toward their value for and impact on personal development. The curricular objectives for the present course include

- the comprehension of theoretical foundations of personality development
- the critical reflection and analysis of naïve assumptions in relation to the positive effects of sport on personality development.
- the transfer of these aspects to the design and reflection of physical education, supporting the development of future pupils, for example with regard to their self-concept.

The assessment consists of a portfolio or term paper of 15.000 to 18.000 characters ([German Sport University Cologne, 2025](#)). The specific course design depends on the lecturer.

3.1.2 Assessment via portfolio

The portfolio underscores the integration of theory and practice regarding the curricular expectations. This instructional design is structured by seven major subjects: personality, self-concept, motivation, shame, digitality and body, inclusion, professionalism. The completion of the portfolio requires tasks related to each of these topics. In general, the tasks are open-ended. They include clear instructions—e.g., design a motor task with different subgoals, considering a specific self-concept domain (social, physical, emotional) –, but the students are free to approach the tasks in their own way (see [Supplementary File 1](#) for exemplary tasks). A template is available for students. Hence, the use of theoretical concepts such as self-concept or self-determination and motivation is a concrete requirement. However, the practical application of theory is non-prescriptive but evaluated as milestone.

The portfolio is not graded beyond pass/fail including revision options. After submission, individual feedback by the lecturer highlights strong aspects in task completion and decisive potentials to work on in future studies. In addition to the final deadline for submission, students can demand feedback and support at any time during the course. The support ranges individually from brief comments on if a task is sufficiently completed for submission to discussing ideas for tasks in depth. Both the task design and the work process follow the idea of autonomy-supportive mediation ([Reeve and Cheon, 2021](#)). As the material and instructions are available to the students from the beginning, the lecturer's role in presence phases solely consists in individual support if preferred.

3.2 Choice between narrative paths

The instructional design provides three different learning paths for the portfolio. These learning paths do not distinguish different levels such as basic vs. expert (c.f., [Portela, 2024](#)) but represent content-related nuances and narratives for the subjects—each one opening an individual meaning framework for related tasks and materials. Students are free to select their path to generate the portfolio. They can submit their final result using only one path or change the paths during the course.

- *The Path of the Researcher* highlights applied research and scientific framework for school sports and physical education issues. Tasks focus on the development of theory-based methods (e.g., data collection, observation tools, research-based guidelines) or the review, analysis and presentation of research findings relevant for practice.
- *The Path of the Teacher* emphasizes reflective teaching practice in physical education. Tasks frequently include the development of theory-based teaching designs for physical education as well as the design and reflection of feedbacks for fictional cases including recommendations for teacher action.
- *The Path of the Explorer* adds an experiential learning path using a fictional story to apply the subjects in an incidentally way. Hence, the subjects are interwoven (subtly) into a fictional science fiction story marked as “Instructional Fiction.” Tasks use the storytelling to associate theoretical insights with events of the story. This path has its starting point in the idea of contrasting usual system perspectives and (the author's) expectations in higher education. Therefore, the experientiality of this path is communicated at the beginning. As for the other paths, students are free to not use this path. Moreover, it has small limitations regarding four subjects that only can be submitted using one of the other paths to ensure completing the learning objectives.

As shown in [Figure 1](#) students can navigate through the subjects in different ways. The yellow and blue points illustrate hypothetical choices by students to complete their portfolio. Students can choose to work on each subject in three different paths. The topics to the left represent the course's subjects structuring the portfolio and learning requirements. Other paths than the illustrated are possible. Students also are free to follow just one path for all tasks.

Each path aims for rational decision-making and reflective practice relating research, theory and physical education practice. The curricular learning objectives are equal but nuanced by the corresponding narrative. For instance, the teacher path requires the design of a self-concept supportive motor task while the path of the researcher focuses on the design of practically applicable evaluation tools. The singular event in the course of the portfolio—each task, each decision—is framed by different narratives and, thus, rationales. These rationales shape the entire path, the specific subject and each task's instruction ([Tables 1, 2; Supplementary File 1](#) for Exemplary tasks).

The path of the teacher underscores tasks with regard to the design of instructions for physical education and the analysis and

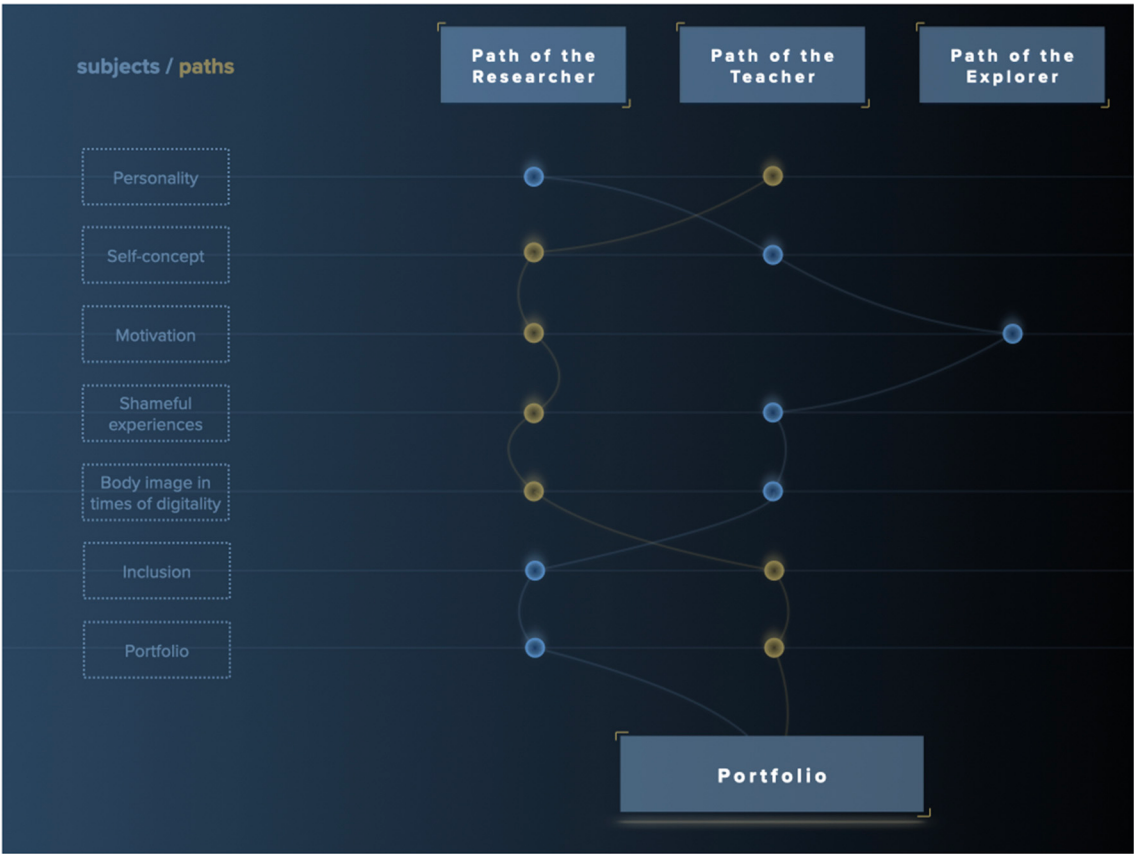


FIGURE 1 Exemplary paths through the subjects of the courses (This image has been translated from German to English in meaningful way by the author for the purpose of this article. The original illustration is part of the moodle course and the lecturer’s presentation at the beginning of the course).

TABLE 1 Brief introduction of the three paths based on the moodle course (meaningful translation from German to English by the author for illustrative purposes).

Path of the researcher	Path of the teacher	Path of the explorer
You do research. This path offers approaches to how scientific tools and your research-oriented mindset may enrich school’s sport practice. Personal development and movement education are the guidelines used for critical appraisal of hypotheses in physical education and for the evidence-based development of its practice.	You teach. This path offers sound tools to reflectively refine and develop your physical education design in a systematic way. Personal development and movement education guide your aspiration and are expressed in the goal-oriented design of motor tasks, feedbacks and consultations.	This path offers fantastic and personal fictional stories using the unknown and curiosity as starting points for exploration. Personal development and movement education raise questions. At its core, this path is about the story as a gateway to engage with these subjects.

reflection of cases as possibility to interrelate practice and theory in light of professionalization (c.f., Lüsebrink, 2006). The path of the researcher focuses on tasks that require the presentation of empirical findings and their impact for practice design, the research of relevant studies actualizing the current state of research or, above all, the design of research tools (e.g., observation protocols, enquiries) based on theory. However, the development of such research tools aims for the potential use by physical education teachers and, therefore, relates to practical conditions as well.

The distinction of narrative paths enables the explicit differentiation of the systemic logics between science and physical education practice. Students are free to choose from the paths based on their preferences such as personal interests, professional

perspective, task difficulty, choice of peers and more. The individual reasons are opaque and justifications for the individual decisions are not requested. The idea of autonomy and personal relevance is prevalent.

3.3 Learning activities and structure

3.3.1 Flipped learning

The instructional design for the presential classes is based on flipped learning (Flipped Learning Network, 2014; Sargent and Casey, 2019) aiming for an in-depth use of interactive lesson time. In consequence, the face-to-face classes contain two predominant phases:

TABLE 2 Brief introduction to the subject of self-concept in three paths based on the current moodle course (meaningful translation from German to English by the author for illustrative purposes).

Path of the researcher	Path of the teacher	Path of the explorer
[...] You are a researcher exploring correlations in depth. You want to know why different students come to completely different conclusions about themselves and their performance in the same learning situation. In addition, you want to know how these personal conclusions impact their learning and behavior. Using evidence-based insights, you do understand the conditions for these effects and their measurement.	[...] You are a teacher and, thus, you are searching for solid alternatives of action: Not every teaching situation is similar or has the same objective. Backed by theory, you develop practical solutions that not only foster the motor development but consider social and emotional domains as well. One thing is clear: The objective and the design should be consistent in your teaching, from the beginning to the assessment and reflection.	As an observer you want to know how to analyse the events in this story. Therefore, you examine the narrations from distance. You need a theoretical scope to perceive relevant distinctions and to derive solid conclusions. How do the story's figures describe themselves as learners? How do they evaluate their self-perception? How does their self-concept shape their behavior? And, does their self-concept align with the perspectives their friends have? These are questions you will explore thoroughly.

- 1 Time is used for discussions and situational social activities—e.g., regarding interesting questions—but not for basic input.
- 2 Students have time to work on their portfolio individually or in small groups.

This structure is backed by an extensive moodle course including all relevant information and material. Students handle the self-regulated time differently putting on headphones to work silently using the available materials in the moodle course or collaborating in small groups. The moodle course consists of the basic requirements, templates, video tutorials for managing the course and the tasks, the tool for the portfolio submission and a FAQ (frequently asked questions; [Supplementary File 2](#)). The FAQ addresses questions about passing the course, designing the portfolio, further requirements or the rationale behind the course's narrative paths for an initial overview. In addition, the moodle course contains instructions and specific tasks in the three pathways and an additional material section including relevant research, gray literature, keynotes and brief screencasts from 3 to 5 min with basic instructional input for the subjects and related themes. For instance, the subject of “motivation” offers studies, keynote presentations and screencasts for the following topics: basic psychological needs, internalization and research on self-determination. Additional questions for voluntary self-checks are included for each subject—using different levels of educational goals. They mark the decisive learning outcome and may support preparation for potential module exams. For example, the subject “self-concept” includes questions such as: “Can I name components of the self-concept?”, “Can I explain different styles of causal attribution?”, “Can I critically appraise what type of self-concept should be emphasized pedagogically? (e.g., realism, overestimation, underestimation)”.

3.3.2 Tasks and instructions

Tasks are presented individually for each path in the moodle course including references for important materials to use. Moreover, every task consists of a brief introduction giving not only instructions but brief theoretical input (see [Supplementary File 1](#) for exemplary tasks). For instance:

“To foster a self-concept as realistic as possible (keyword: *veridicality*), it may be helpful to use different informational sources for information about oneself (*trait ascription*). Design a motor task with a specific learning goal that includes different formats for individual feedback (e.g., feedback from the teacher, peers, observation sheet, self-report etc.).”

The instructions are closely structured to support requirement clarity, evident progress and, thus, the experience of competence ([Ryan and Deci, 2017](#)). In addition, many tasks offer the re-use of materials, for instance, by developing theory-based learning objectives for physical education subjects in one task and by developing well-directed motor tasks in another task. Narrative coherence interrelating these tasks is an option—in light of the function of narratives to organize experiences and narrative learning frameworks (c.f., [Abbott, 2020](#); [Clark and Rossiter, 2008](#)).

Nevertheless, students do not have to be interested in the narrative contextualization to pass the class. “It is totally fine to work on the seminar's requirements without further interest in the storytelling.” (FAQ in moodle) The instructional design aims for individual modes to engage with materials as well as clear structure through specific task constraints as theorized in the constraint-led approach for instance (c.f., [Araújo et al., 2006](#); [Davids et al., 2008](#)). Furthermore, the tasks foster problem-solving by exploring individual and creative solutions. This applies in particular to the possible integration of the students' personal expectations, creative perspectives and goals—as part of creative hypothesis testing and exploration backed by searchlight learning theory ([Piggott, 2008](#); [Popper, 1974](#)).

The tasks requirements differ depending on the path. Though, each path intersects research and teaching practice and contains various types of tasks (e.g., designing presentations, drafting a podcast, writing essays, providing observational tools) to train for future requirements in research and educational contexts. Many subjects include optional tasks as well. They may be used for the students' portfolio, be ignored or just looked over loosely. They represent opportunities for further reflection or analysis. For instance, the subject *personality* includes the following voluntary task for further application of theory:

“Sport is frequently associated with personal development. Search for material (e.g., concepts of sport organizations, sport schools) and analyse its understanding of personality.”

In general, the representation of tasks and materials is redundant—offering information not always necessary to pass the course but for situational use or further reflection upon subjects and learning designs—or to just briefly run through an interesting point of view. This redundancy is intentional. It combines *content redundancy* (e.g., based on the number of tasks to choose from) and *mode redundancy* based on the multiple formats of informatively

redundant materials (e.g., studies, screencasts, keynotes, additional materials). These different types of redundancies may lead to different effects on learning (Albers et al., 2023). However, its impact still needs to be investigated, especially due to the diverse effects of redundancy on cognitive load (Schnotz and Kürschner, 2007).

3.3.3 Meaningful decisions

The three pathways offer individual frameworks of meaning to explore the courses' materials and tasks in distinct ways. Selecting one path over another provides a specific port to the question of how the subject matters. Choosing one path over another has meaningful consequences for the learning activities and requirements and, thus, may foster the experience of autonomy (Reeve and Cheon, 2021). In addition, students are provided with several options choosing tasks within one path as well offering opportunities for further individualization. For instance, students working on the topic of *motivation* in the *Path of the Researcher* can choose between (a) the presentation of key findings of a systematic review about self-determination theory and physical education emphasizing implications for practice, or (b) the development of a checklist for teachers to evaluate their own physical education practice based on basic psychological needs theory and orgasmic integration theory (Ryan and Deci, 2017). The competence to achieve is the application of self-determination theory to physical education issues. Using another example, students create an observational guideline for shame prevention in physical education based on empirical studies as part of the *Path of the Researcher*, whereas they develop theory-based action and feedback alternatives for a fictional case of shameful experiences in physical education in the *Path of the Teacher*. The materials to use are the same for both paths, and all tasks claim to relate practice and theory/research. However, the student's decision has an impact generating a specific learning pathway.

3.3.4 Feedback and engagement

Feedback and co-working on tasks are offered continuously. Based on the lecturer's experiences, the possibility to take part in the students' individual work flows and co-develop solutions leads to in-depth discussions as well as clarity of requirements in early work phases. As mentioned, students are free to use these time slots individually as they bring in their personal working speed and preferences. Despite the amount of 30 students, the lecturer's mediation of the individual learning process usually does not lead to organizational difficulties due to the students' individual engagement with materials, not requiring extensive feedback frequently.

The conceptualization of the learning activities aims for student engagement and learning through different meaning frameworks, various options, clear instructions, and individual support if preferred. Personal relevance, choice and hands-on activities applying theory to physical education practice may be supporting factors for the engagement in light of situational interest in higher education (Guo and Fryer, 2025). However, critical evaluation of this concept's effects still needs to be done.

4 Evaluation strategy

The instructional design has not yet been evaluated. Based on the author's experiences and informal impressions, opportunities for choice and self-organized learning phases are welcomed by students as well as the option to inquiry feedback in early phases of the working process. The structured guidelines to access the subjects as well as detailed descriptions of tasks seem to support the goal-oriented work. In addition, the moodle course seems to offer goal-oriented working on the different tasks as organizational questions are scarce. However in my perception, the use of paths differs as the *Path of the Teacher* seems to gather most attention, followed by the *Path of the Researcher* and lastly the *Path of the Explorer*. This could be result of the student's perspective of becoming physical education teachers but may be related to prior knowledge about teaching and researching as well. These reasons still need to be investigated. Moreover, the impact of the narrative approach on motivation and learning will be subject to further evaluation. According to the rationale of the instructional design, the evaluation strategy presumably targets.

- Personal relevance (based on structured and semi-structured inquiry)
- Need satisfaction (based on structured and semi-structured inquiry)
- Learning outcome (based on portfolios)
- General perception of the instructional design (based on semi-structured inquiry)

Using a mixed-methods approach, the planned evaluation should generate an overview about the motivational impact as well as in-depth insights into the perception of the narrative approach. This is due to the fact that the instructional design cannot determine the individual significance associated by students. As the paths represent a deduction of what may be associated with the course and the broader context of academic studies based on the lecturer's perspective and professional experiences, the paths do not necessarily align with personal matters. Furthermore, the future qualitative insights will also shed light on the question of how individualization is aligned with social experiences in the present concept as students can work individually on their tasks without frequent social interaction. In addition, the impact of material and task redundancy will be analyzed. Hence, the implemented concept is refined constantly. Finally, it is to mention that the development of different pathways and materials for the course's subjects requires extensive preparation time for the lecturer compared to one pathway.

5 Practical implications

The main rationale for this concept is the notion of providing more than one learning pathway as students bring in individual viewpoints and interests toward subjects and their professional development. Due to the current lack of evaluation data, the implications underscore the practical conclusions for the development of narrative learning pathways in teacher education:

- i Narrative approaches can be used to create distinct learning paths and individualization opportunities.
- ii Different narratives highlight the contextuality of subjects' relevance and application in higher education teacher education.
- iii Using different narratives can offer opportunities to discuss systemic points of view and criteria, for instance, between science/research and teaching as well as their potential intersection.

This instructional design does not claim to dissolve boundaries between theory and practice or research and teaching but highlights their distinction explicitly in different narratives shaping tasks and their meaning. Regarding professionalization, the competence to operate purposefully with these logics may be instructive.

Data availability statement

The original contributions presented in the study are included in the article/[Supplementary material](#), further inquiries can be directed to the corresponding author.

Author contributions

BB: Conceptualization, Writing – original draft, Writing – review & editing.

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References

- Abbott, H. P. (2020). *The Cambridge Introduction to Narrative*, 3rd Edn. Cambridge: Cambridge University Press.
- Adler, J. M., Lodi-Smith, J., Philippe, F. L., and Houle, I. (2016). The incremental validity of narrative identity in predicting well-being: a review of the field and recommendations for the future. *Pers. Soc. Psychol. Rev.* 20, 142–175. doi: 10.1177/1088868315585068
- Adler, J. M., Waters, T. E. A., Poh, J., and Seitz, S. (2018). The nature of narrative coherence: an empirical approach. *J. Res. Pers.* 74, 30–34. doi: 10.1016/j.jrp.2018.01.001
- Albers, F., Trypke, M., Stebner, F., Wirth, J., and Plass, J. L. (2023). Different types of redundancy and their effect on learning and cognitive load. *Br. J. Educ. Psychol.* 93, 339–352. doi: 10.1111/bjep.12592
- Araújo, D., Davids, K., and Hristovski, R. (2006). The ecological dynamics of decision making in sport. *Psychol. Sport Exerc.* 7, 653–676. doi: 10.1016/j.psychsport.2006.07.002
- Bonn, B., Koerner, S., and Staller, M. S. (2025). “Stories of Self-Defence. Narratives in teaching self-defense in YouTube Shorts,” in *Paper presented at the 12th Annual Conference of the dvs Commission on Martial Arts and Combat Sports, Georg-August University Göttingen, 11–14 March*.
- Clark, M. C., and Rossiter, M. (2008). Narrative learning in adulthood. *N. Direct. Adult Contin. Educ.* 2008, 61–70. doi: 10.1002/ace.306
- Davids, K., Button, C., and Bennett, S. (2008). *Dynamics of Skill Acquisition: A Constraints-Led Approach*. Champaign, IL: Human Kinetics.
- Deci, E. L., and Ryan, R. M. (2000). The “What” and “Why” of goal pursuits: human needs and the self-determination of behavior. *Psychol. Inq.* 11, 227–268. doi: 10.1207/S15327965PLI1104_01
- Deslauriers, L., McCarty, L. S., Miller, K., Callaghan, K., and Kestin, G. (2019). Measuring actual learning versus feeling of learning in response to being actively engaged in the classroom. *Proc. Nat. Acad. Sci. U. S. A.* 116, 19251–19257. doi: 10.1073/pnas.1821936116
- Deterding, S., Dixon, D., Khaled, R., and Nacke, L. (2011). “From game design elements to gamefulness: defining “gamification,”” in *Proceedings of the 15th International Academic MindTrek Conference: Envisioning Future Media Environments*, (Tampere: ACM), 9–15. doi: 10.1145/2181037.2181040
- Di Domenico, S. I., Ryan, R. M., Duineveld, J. J., Bradshaw, E. L., Parker, P., and Steward, B. A. (2024). Exploring facets of student motivation using a Bass Ackward strategy and the conceptual lens of self-determination theory. *Contemp. Educ. Psychol.* 79:102321. doi: 10.1016/j.cedpsych.2024.102321
- Flipped Learning Network (2014). Definition of Flipped Learning. <https://flippedlearning.org/definition-of-flipped-learning/>
- German Sport University Cologne (2025). *Modulhandbuch Lehramt an Gymnasien und Gesamtschulen - Unterrichtsfach Sport*. Available at: https://www.dshs-koeln.de/fileadmin/redaktion/Studium/Organisation/Studienunterlagen/Modulhandbuecher_neu/Lehramt/PO2025_BA_GYM_KOELN.pdf (Accessed September 23, 2025).
- Guo, Z., and Fryer, L. K. (2025). What really elicits learners' situational interest in learning activities: a scoping review of six most commonly researched types

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/feduc.2025.1669353/full#supplementary-material>

- of situational interest sources in educational settings. *Curr. Psychol.* 44, 587–601. doi: 10.1007/s12144-024-07176-x
- Hammack, P. L. (2008). Narrative and the cultural psychology of identity. *Pers. Soc. Psychol. Rev.* 12, 222–247. doi: 10.1177/1088868308316892
- Körner, S. (2024). *Narrative Gamifizierung in der sportwissenschaftlichen Hochschullehre Konzeption - Durchführung - Evaluation*, 1. Auflage. Baden-Baden: Nomos.
- Körner, S., Bonn, B., and Staller, M. S. (2024). *Gamification in der Hochschullehre: Ein praktischer Leitfaden für Dozent*innen*. Wiesbaden: Springer. doi: 10.1007/978-3-658-45130-1
- Luhmann, N. (2004). *Das Erziehungssystem und die Systeme seiner Umwelt* (1996). Frankfurt: Suhrkamp, 209–244.
- Luhmann, N. (2012). *Soziale Systeme*, 15th Edn. Frankfurt: Suhrkamp.
- Lüsebrink, I. (2006). *Pädagogische Professionalität und stellvertretende Problembearbeitung. Ausgelegt durch Beispiele aus Schulsport und Sportstudium*. Köln: Sportverlag Strauß.
- McAdams, D. P. (2001). The psychology of life stories. *Rev. Gen. Psychol.* 5, 100–122. doi: 10.1037/1089-2680.5.2.100
- McLean, K. C., Syed, M., Pasupathi, M., Adler, J. M., Dunlop, W. L., Drustrup, D., et al. (2020). The empirical structure of narrative identity: the initial Big Three. *J. Pers. Soc. Psychol.* 119, 920–944. doi: 10.1037/pspp0000247
- Piggott, D. (2008). The psychology of “managing mistakes”: some implications for coaches and managers. *Dev. Learn. Organiz.: Int. J.* 22, 20–23. doi: 10.1108/14777280810886409
- Popper, K. R. (1974). “Kübelmodell und Scheinwerfermodell: zwei Theorien der Erkenntnis,” in *Objektive Erkenntnis: ein evolutionärer Entwurf*, ed. K. R. Popper (Hamburg: Hoffmann und Campe), 369–390.
- Portela, F. (2024). Learning paths: a new teaching strategy with gamification. *OASICS* 122, 13:1–13:12. doi: 10.4230/OASICS.ICPEC.2024.13
- Ranke, K. (1967). Kategorienprobleme der Volksprosa. *ProQuest* 9, 4–12.
- Reeve, J., and Cheon, S. H. (2021). Autonomy-supportive teaching: its malleability, benefits, and potential to improve educational practice. *Educ. Psychol.* 56, 54–77. doi: 10.1080/00461520.2020.1862657
- Ryan, R. M., and Deci, E. L. (2017). *Self-Determination Theory Basic. Psychological Needs in Motivation*. New York, NY; London: The Guilford Press.
- Sargent, J., and Casey, A. (2019). Flipped learning, pedagogy and digital technology: establishing consistent practice to optimise lesson time. *Eur. Phys. Educ. Rev.* 26, 70–84. doi: 10.1177/1356336X19826603
- Schell, J. (2009). *The Art of Game Design: A Book of Lenses*. Boca Raton, FL: CRC Press.
- Schnotz, W., and Kürschner, C. (2007). A reconsideration of cognitive load theory. *Educ. Psychol. Rev.* 19, 469–508. doi: 10.1007/s10648-007-9053-4
- Schön, D. A. (1983). *The Reflective Practitioner: How Professionals Think in Action*. New York, NY: Basic Books.
- Shenhav, S. R. (2015). *Analyzing Social Narratives*. New York, NY; London: Routledge; Taylor & Francis Group.
- Sugiyama, M. S. (2001). Narrative theory and function: why evolution matters. *Philos. Literat.* 25, 233–250. doi: 10.1353/phl.2001.0035
- Valcke, M. (2013). “Evidence-based teaching, evidence-based teacher education’ (quality of teachers and quality of teacher education),” in *New Frontiers of Educational Research*, eds. X. Zhu and K. Zeichner (Berlin; Heidelberg: Springer), 53–66. doi: 10.1007/978-3-642-36970-4_4
- Vansteenkiste, M., Aelterman, N., De Muynck, G.-J., Haerens, L., Patall, E., and Reeve, J. (2018). Fostering personal meaning and self-relevance: a self-determination theory perspective on internalization. *J. Exp. Educ.* 86, 30–49. doi: 10.1080/00220973.2017.1381067
- Vansteenkiste, M., Smeets, S., Soenens, B., Lens, W., Matos, L., and Deci, E. L. (2010). Autonomous and controlled regulation of performance-approach goals: their relations to perfectionism and educational outcomes. *Motiv. Emot.* 34, 333–353. doi: 10.1007/s11031-010-9188-3