NETWORKING AND STUDENT COLLABORATION IN TIMES OF VIRTUALIZED CONTACTS: WORKING OUT LOUD AS A METHOD TO PROMOTE GROUP COHESION

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ABSTRACT

Prior to Covid-19, virtual teams and digital collaboration were not well established in higher education. The need for more methodical support to guide students through new group processes in a digital world is now rising. Although students are very familiar with the use of technologies for virtual meetings and sessions, for example from their private environment, and teamwork has also become an integral part of their studies, the past semester has shown that especially students in their first semesters need to be supported when working in virtual teams, building networks and helping each other in a digital environment. In this article, we introduce Working Out Loud (WOL) as a method to support students in their collaboration in virtual teams. We applied WOL to the cooperation of students in two different courses and examined the benefits in terms of group bonding, self-organization, reflective behaviour and goal pursuit. The results of this research are presented here.

INTRODUCTION & MOTIVATION – WOL IN EDUCATIONAL SETTINGS

Recent semesters with a significant increase in online lectures and virtual collaboration in teams show the need for a methodical support of students in building teams and forming virtual networks. Working Out Loud (WOL) is a method developed by John Stepper (Stepper, Working Out Loud, 2020), that is used successfully in companies to network employees and to guide them towards cooperative, appreciative and reflective cooperation. WOL thus could be a method for supporting students in their online semesters to build virtual teams, to learn to be self-organized in cooperation with a network, to reflect their own work and to expose and reach their own goals. At Heilbronn University of Applied Sciences, we applied WOL to a freshman course in a Bachelor in Software Engineering (BA), and to a first semester of a Masters course in International Business and Intercultural Management & International Tourism Management (MA). WOL is based on a weekly one-hour meeting (circle) of the group over 12 weeks, led by circle guides - documents that structure the meetings and organise them with tasks and instructions. In these meetings, participants choose individual goals, support each other in achieving them, build networks with people outside and inside their own circle and reflect on many personal details. Our semester groups applied WOL for these 12 weeks, supported by the circle guides and (in the case of BA students) tutors.

With our application, we were interested in understanding how WOL can help students in the above-mentioned way and how they manage to apply WOL. We also wanted to see whether there were any differences in the method's applicability when applied to the undergraduate versus the postgraduate course. In order to evaluate these questions, we have collected data from student's surveys, observations, reflective papers and workshops with our tutors while applying WOL.

In this report, we introduce WOL as a method and place it in the context of agile learning and building group cohesion in higher education. We will show our results in using WOL in a Bachelor's and a Master's course, discuss the achievement of our objectives, and propose some adaptations to meet the requirements, especially for first year BA students. Furthermore, we will outline our future research on those adaptations and interactive learning sequences for students.

INTRODUCTION TO WOL AND ITS RESEARCH CONTEXT

Continuous change requires continuous learning. With the transition from the industrial to the knowledge-based digital age, lifelong learning has been identified as a key skill and attitude for individuals and organizations to thrive in the digital age (Serrat, 2017). As the foundation of learning requires skills that are non-academic (Dweck, 2015), a need for agile education, i.e. teaching in iterative steps with the building of active, self-organized learners, and teaching that includes methods and opportunities for students to (self-)develop the required digital age skill set, such as peer learning and building networks, has been identified (e.g. Cubric, 2013; Kamat, 2012; Krehbiel et al., 2017). Working Out Loud (WOL) can be categorized as another agile method of learning and self-development. However, there is a lack of scientific research into the usage of WOL and its benefits for students in higher education. With our work, we hope to contribute to a better understanding of the possibilities of WOL in this context and in addition show its relationships to other similar ideas.

Literature on teaching students 21st century skills provide lots of ideas for reforming (or not) curricula and methodologies (project based, experience based, …) of teaching or testing (e.g. Bellanca & Brandt, 2010; Bell, 2010). Self-organized learning, critical thinking and reflections, the pursuit and achievement of objectives, and working in groups seem to be crucial in these discussions. Agile learning methods (e.g. Stern, 2019; Lang, 2017) like LearnOS or EduScrum (e.g. Wijnands *et al.* 2015; Wijnands & Stolze, 2019) came into focus in university learning to meet the need for the aforementioned goals. They establish rituals, events and roles to support self-organized learning, goal-oriented group work and critical reflection. Among them are weekly meetings for group planning, methodically guided retrospectives (on individual and group work), or such elements as learning diaries or backlogs.

WOL is a method that helps individuals to achieve self-chosen goals, to reflect their own work and to support others in a group setting of 3-6 people (so-called circles) over a period of 12 weeks. The WOL method, with a mix of individual and group development elements, draws on well-established psychological and sociological theories. Firstly, the autonomy to select a self-chosen goal increases intrinsic motivation and engagement (self-determination theory) (Deci *et al.*, 1991; Deci & Ryan, 1985). In addition, WOL promotes the establishment of a so-called growth mindset (Dweck, 2015), with the aim of learning and believing in the ability of continuous progress through sticking to a goal, also with the support of peer circle members. Secondly, through regular group meetings, WOL promotes group cohesion and bonding over time (Baumeister & Leary, 1995; Evans & Dion, 1991). Through sharing one's goal with a small group and experiencing the WOL learning journey together, ties amongst group members are built up and a psychological safe space, where drawbacks and success can be shared, is created (Schulte *et al.*, 2012). Furthermore, the weekly WOL tasks guide participants in the creation of goal related relationships (e.g. to others working on a similar

goal) outside of their WOL circle with the aim of network building and thus increasing one's social capital (Coleman, 1990). WOL combines relationship building activities with the development of social skills (communication styles, self-reflection) to achieve individual goals (Baron & Markman, 2000).

The WOL method provides open-source circle learning guides with activities that lead the small groups over 12 weeks in weekly one-hour meetings. Here, the achievement of the goals of each circle participant is discussed and the group members support each other in achieving their goals. In addition, circle members learn with the assigned weekly tasks in the provided circle guides how to build a network, articulate appreciation, work together, and experience peer coaching and support first-hand. The guides are provided in an online workbook (Working Out Loud, 2021). The WOL method has gained popularity within organizations as an instrument for cultural change and to enhance informal structures for collective learning beyond departmental structures (Schmidt, 2019). WOL in an education context has only recently gained attention with few reports on the method in higher education (Huber, 2020). The emerging WOL education community, including founder John Stepper, is starting to compile first insights into the application of this approach in a classroom setting, and this paper seeks to contribute to these initial insights.

CASE SETTING & OBJECTIVES - WOL IN UNIVERSITY CLASSROOMS

WOL promises to support our objectives in supporting our student teams (Aten, Nardon, & Stanko, 2016) in their virtual collaboration. These objectives are:

- Increasing group bonding, especially in virtual teams of students that don't know each other at all or very little, which is often the case in the earlier semesters of a course.
- Promotion of growth and learning-oriented thinking in our students through mutual help and support.
- Development of self-organized and targeted learning in cooperation with a network within a complex and digitized working environment (VUCA).
- Increasing the students' ability to reflect – on own progress in learning as well as the individual perception of group structures and emotions.
- Learning to expose own goals, ideas or projects - in social media, as well as in online or hybrid events.

To learn more about WOL in a university context and evaluate the achievement of these objectives we applied the method to two courses with students at Heilbronn University of Applied Sciences, Germany. In the 2020/21 winter semester, we tested the application of WOL in a freshman course in a Bachelor in Software Engineering and in a first semester Masters course in International Business and Intercultural Management & International Tourism Management. The backgrounds of the students are different. The majority of the Bachelor students come directly from post-primary school education, but nearly a third of them have already completed vocational training and have decided to undertake further study. Approximately 50% of the Masters students were international students and the vast majority of students had prior work experience, at least in the form of internships. With this application we were interested in the following research questions:

- Does WOL meet our above-mentioned objectives?
- How do the students manage to apply the method WOL?
- Are there any differences in the method's applicability to the BA vs MA students?
- Do content or procedures of WOL have to be adapted? If yes, in which form?

Prior to looking at our experiences and the answers to our research questions, details of both course settings are described in the table below.

We will refer to courses as the Bachelors (BA) and the Masters (MA) course. The course settings are crucial in the final discussion of the results.

	Bachelors Course / IT faculty	Masters Course / Business School
Major	Software Engineering	International Business and Intercultural Management & International Tourism Management
Lecture and Context	Lecture on techniques for studies and work - first semester course with students starting their studies after school or apprenticeship	First semester, business studies course focusing on organizational challenges faced by megatrends, required transformation management and agile work
Setting	Online lecture (1.5 hr. per week, lecturer) & online circles (1 hr. per week, tutors) Short introduction to WOL and its aims at the beginning of the lecture, tutors for each WOL circle to help organizing and give hints	Online lectures with weekly 1 hr. online circles slots dedicated to WOL, pit stop events (guest lectures) and WOL related theories embedded into course content (lecturer)
Circles	3-5 members, grouped by the lecturer on a short personal test (students do not know each other since it was their first semester)	4-5 members, grouped by lecturer to avoid homophily effects and guarantee high level of group diversity (major, nationality, gender)
Numbers	16 Circles, 65 students	10 circles, 47 students

The students were free to choose their personal goal to experience first-hand the increased intrinsic motivation deriving from a self-determined goal (Deci *et al.*, 1991). However, to give students some context and ideas to think about a goal, they were encouraged to choose a goal related to their studies or future career (e.g. topic related to thesis or potential future occupation). It was stressed however that they should pick a goal which they truly cared about. To support students with the goal finding stage an in-class 'personal purpose' exercise, based on the hedgehog method by Collins (2001), was conducted in the Masters course. It gave students the opportunity to self-reflect on areas in which they wanted to pursue further learning.

DATA COLLECTION AND MODES OF ACTION

Due to the exploratory nature of the study, we chose different methods of data collection in the two courses. On the one hand, this is due to the different requirements in the lectures and, on the other hand, to allow for triangulation of our data (Creswell, 2014) for obtaining a broad and comprehensive picture of the use of WOL in the university context. Data was collected in the form of two surveys, narratives from workshops and observations (BA course) and students' written reflections of their WOL experience (MA course).

In the Bachelor's course two surveys in the form of questionnaires with open-ended questions were carried out. Students filled the first questionnaire in weeks 6 and 7 of the implementation of WOL and the second questionnaire in weeks 12 after implementation of WOL in the course. The first questionnaire dealt with the understanding of WOL and their initial experiences of WOL. Here we wanted to understand how students accepted and implemented WOL as a method. Specifically, we focused on the student's choice and pursuit of goals, and on getting along with the guides. We were interested in how the exercises were carried out. We also wanted to know how the cooperation and group support in the circle worked and how students networked (on social media and in the group). In the second survey, we asked students to reflect on what they had experienced - regarding the choice of their goal, working together in a team, their own learning success, networking, and the use of the guide. The circles in the Bachelor's course were accompanied by tutors. They supported

their circle individually, there were circles that did not need any support and held the meetings independently and others in which the tutor moderated and supported. In between there were various options, so individual tutors chose moderators each week or jumped into circles at several times to offer support. We asked the tutors to write down their observations from each circle and evaluated the collection of all these notes. In addition, we held three workshops with the tutors, in which we talked about their experiences with the circles, possible adjustments and useful tips in supporting the circles. We have also documented these results. The last central point of our data collection were observations. We were sure that observations by the lecturer would lead to adjustments in behaviour in the circles. The two weekly observations would be carried out in alternating circles by a Bachelors student who also documented these results in a standardized format in a template. Due to the setting of an online event, this observation was very discreet and the students hardly noticed.

Data collection on the Master's course draws on exploratory narrative research, based on individual and group reflection activities (Connelly & Clandinin, 1990; Gudmundsdottir, 2001). Students reported on their personal experience with the WOL method in a reflective essay and reviewed the 12-week WOL group experience in their respective group by conducting a retrospective exercise, including a summary of perceived positive and negative aspects of the method in the context of their course. Each week the groups did a short reflection and check-in with peer students and the lecturer to make sure no one is left behind during the WOL learning journey. Narratives and personal stories related to WOL were collected. The qualitative data was analysed with a general inductive approach (Thomas, 2003; 2006). The content analysis consisted of familiarization with the data through multiple readings, data reduction and generation of initial codes, searches for themes, and finally reviewing the themes which led to overachieving themes (Braun & Clarke, 2006). Two overachieving themes derived, namely the group process experience in general (cohesion) and the development of a more open and cooperative mindset.

FINDINGS – EVALUATION OF APPLICATION OF WOL IN UNIVERSITY CONTEXT

In this section we will discuss our results on the application of WOL on a Bachelor's and a Master's course. We will outline in which form we have achieved or set objectives and what we and our students have learnt from one semester of WOL.

Prior to the discussion of findings in terms of our research objectives, we briefly outline student's self-chosen goals. We could identify three clusters. The first cluster was related to goals that fit into the course content in a broader sense, but are not part of the course curriculum, such as "resilience and mindfulness in the work environment" or "learning certain programming languages, app development" or "programming my first game in unity". In the second cluster students chose goals related to the organization of their studies (time management, motivation), such as "staying on track with lectures" or future work possibilities "make myself visible on professional social media". The third cluster of chosen goals were personal goals in terms of hobbies and socializing, such as "learn to hand letter", "learning certain (new) languages" or "getting in contact with new people".

The BA students mainly chose goals with a direct relationship to their studies and hence their goals were usually technical, while the MA students chose goals that benefitted from networking and were indirectly related to their studies. This may have had an impact on the different reception of WOL in the two courses and should be taken into account in our subsequent analysis of the degree to which our goals for the use of WOL have been fulfilled. To anticipate the results briefly: our goals of group loyalty and support in pandemic times have been fully met in both courses. The other goals achievements are stronger in the MA course and in the BA course only with gradations, as we will see in the following.

Achievement of our objectives

In both courses students welcomed the opportunity of the experiential learning journey through WOL, especially because of the group experience during Covid19 times, where WOL offered the opportunity to connect with peers outside of the contexts of lecture or seminars. From the data two themes of student experience have been derived 1) the group bonding experience during the online course in general and 2) the impact the method had on their self-development. In the latter, we found significant differences in the results between the two courses.

Group Bonding Experience

Right from the beginning, students of both courses highly appreciated their circles, the work in the groups and the regular meetings. In the words of one of the tutors "the students celebrated their groups". Belonging to a group gave students the opportunity to relate and connect:

> *WOL was the highlight of my week in terms of university. Being stuck in this pandemic, changing the whole student life, I missed the personal contact and exchange with my fellow students and the feeling of being part of a team. WOL allowed us to get to know each other better, which I am sure would otherwise not have been the case.*

The circles and the weekly meetings gave students of both courses the opportunity to get in contact with other students, start regular exchanges and feel integrated. The students started their studies directly online and had no contact other than in the virtual environment, lacking the informal opportunities to connect on campus. Thus WOL, with the group cohesion experience at core, gave them the opportunity and room to get to know each other at a more in-depth level. It helped them to overcome their isolated home university situation and form a virtual group with private (online) activities alongside their studies. In many cases social ties were established, contributing to students' social capital, and some circles continue to meet for self-organized events after the 12 weeks:

> *It was nice to get to know some people of the class closer, because of the corona situation this was not so easy. I am happy to call my group members friends now.*

Generally, the group process was appreciated by students and the WOL method contributed to the establishment of cohesive groups and peer support structures.

Impact of the method on student's self-development

In terms of the remaining objectives, drawing on self-development aspects of WOL, we learned that students had different experiences and made different progress. Achieving our objectives was more challenging and we've found mixed results.

<u>Self-organized and targeted learning:</u>

Self-organization within the circles and the structure of the hourly meetings worked well in both courses. The supporting tutors in the Bachelor's course indicated that the group organized itself much better and was more motivated, and that WOL meeting roles, such as moderator or timekeeper, were perceived with considerably more enthusiasm when the tutors withdrew themselves. In the role of coach and idea generator in the circle, they were able to contribute from their own experiences or give advice on how to reflect on their own experiences. As soon as they took on this role, the group became much more active and was able to organize the circle in a self-organized manner.

Active learning and ability to reflect:

Working Out Loud aims to develop an active attitude towards one's own learning. By reflecting on the achieved goals and one's own work, learning success and one's own commitment should improve. The goal to foster active learning and reflection through the experiential learning process could be observed in the Master's course. Students actively reflected on their learning and observed changes in their behaviour:

> *I've learned new habits, looked at certain problems and situations from a different perspective and established valuable ties with people I did not know before.*

Moreover, they reflected on learning through knowledge sharing and reported learning new things about themselves:

> *I love the supporting environment where we shared our experience and our knowledge. During the WOL journey I got to know myself better and learned more about others and the society.*

In the Bachelor's course, it was much more difficult for the students to reflect on their own work or to use the circle guides constructively. It is noticeable that the students often remarked that the guides had to be adapted to the needs of students (instead of employees which is who they thought the guides were made for), but could not give any concrete examples or even name adaptations:

> *Most of the exercises did not work or were not suitable for students, so I cannot give a specific mention [of how exercises need to be adopted].*

Through the observations and the workshops with the tutors in the BA course, we found out that the students mainly had a problem with exercises that had the task of exposing their own goals etc., especially on social media. As mentioned above, they could only recognize the goal of the exercise to a limited extent and thus adapt it to their own situation. Rather, the focus was on dealing with social media, as we will see in the next section.

Learn to expose your own goals, ideas or projects:

We were only able to convey the idea that a network can help in various ways to achieve one's own goals in a rudimentary way in the BA course**.** In particular, the idea of exposing their inner thoughts and building relationships inside a network not limited to the student's university class was seen sceptically by the students. We found out that they strongly differentiate between a private social network (which a small amount of the BA students used) and professional or university related networks. The BA students did not like the idea of exposing themselves in either of those networks. They did not want to use their "private" network for helping them to reach their WOL goal (which they declared as "university related"). In general, they are not active on social media. Very few of them started to build new virtual networks besides their new group network. The Masters students also raised those concerns; however, many of them have worked in a business environment and have professional social media accounts, this may also be due to the business studies context.

Growth mindset and network building:

Consciousness towards continuous learning and progress (Dweck, 2015) by connecting with others (Kamat, 2012) also developed amongst Master students. The interrelationship of achieving new goals and personal growth by building valuable connections was one of students' key learnings:

> *The experience showed me that one should never underestimate the value of relationships, that setting a goal one is really passionate about takes time, and that one should always try something new to improve and grow beyond oneself.*

Personal growth in terms of reflecting how new ways of thinking changed student's self-image and the attitude that the collective power of networks contributes to individual success was reported:

> *I observed a shift in the way of thinking. I used to think that by working hard, one can be successful and earn recognition. However, I understood the importance of being connected and 'better together'.*

Referring back to skill sets required for the digital age (Cubric, 2013; Kamat, 2012; Krehbiel *et al.*, 2017), WOL has contributed to enhance those skills in the MA course, particularly in terms of taking active responsibility for one's own learning by sharing in building a network with peers and beyond to achieve one's goals. The analysis of the reflection reports indicates that WOL has had an impact beyond the respective in-class event and assisted in the internalization of a more open and collaborative mindset.

Context matters: Applicability of WOL with current circle guides

From our data we learned that the applicability of WOL and its current guide and exercises differed in the two courses. The students of the Bachelor's course stuck to the circle guides very closely and performed the exercises even when they actually thought that it didn't help them much or even found them uncomfortable. Only through the encouragement and support of the tutors were they able to make adaptations independently in the group or to design exercises according to their own wishes and needs. The Bachelors students found some exercises rather childish or were not able to apply them to their personal setting. These were in particular exercises in which relationships should be cultivated or reflected upon. Such exercises were judged negatively rather than constructively considering what the goal of the exercise was and how this could have been achieved in a way that suits them.

The documented experience by Masters students was more positive and only minor changes to the WOL circle guides (e.g. students suggested that group building activities, such as sharing a list of personal characteristics, be introduced earlier) were mentioned by the students. However, students also viewed the circle guides as 'guides' and did not try to work on all the tasks in the same manner but decided on the peer coaching aspect and check-in / check-out phase of the meetings.

We believe the applicability of the WOL method with the existing guides was in the Master's course higher due to three aspects. Firstly, the context of the course (business studies with a focus on transformation management and agile work) made it easy for students to understand the underlying reasons for the journey (also pointed out in pitstop guest lectures and course content) and also future job opportunities as WOL is used in large organizations (e.g. Bosch, Siemens), thus knowing agile methods may become a recruitment advantage. Secondly, these students were likely to be at a more advanced level of personal development due to students' age and their past study and work experience. Thirdly, the higher level of (professional) social media activity vs. BA students, with accounts on LinkedIn, Xing or Twitter, which made it easier for them to make their work visible and to establish relationships online during the Covid19 limitations.

To conclude, the need and level of adaptation of the available WOL guides strongly depends on the course context. In both cases adaptations are suggested as WOL is focusing on a work environment setting but is particularly recommended for BA-level students in a non-social sciences context. Hence, when doing further research and new projects on WOL we have to take the context into account; we will discuss this in the next section.

FURTHER DEVELOPMENT AND PROJECTS

When we discussed our first data with colleagues from other universities in Europe, we found out that a lot of others are planning to either do WOL with their students in the next semesters or use something that is inspired by or near to WOL to activate their students and bring them to a learning and goal-oriented attitude. Our first results on the BA course showed that the students were struggling with some of the ideas, concepts and exercises, especially those who need social media accounts. We widely discussed the idea with our colleagues, and some of them suggested that the students might be in a situation where everything is new and they may have other challenges in their first BA semester. Others reminded us that learning new methods and a new attitude to learning should start in the first semester and especially the connection in groups might help students in their first semester. The latter was mentioned by our students very often - they were happy about being in the groups and being supported by a method which helped them to stay on track and to connect in their first (online) semester. This motivated us to build an own learning sequence, inspired by agile learning methods and WOL for our students in their first semester. This learning sequence is embedded in our Ilias learning platform and enables the circles to be carried out in a structured and documented manner. It contains a number of interactive elements, exercises and instructional videos. Above all, however, it is one thing - a novelty in the design of complete learning content: it was designed and implemented by the students themselves. This participatory approach is new to our degree program and is only just emerging. The students will use the learning sequence every semester but also develop it further. We will continue to monitor and investigate this development. Conversely - as can be seen from the above-mentioned discussions - there will be many more uses of WOL in the university context, so that the database will expand and we will understand more and more precisely which goals we can achieve with the use of WOL for students and in which contexts we can use WOL. Our university will contribute to this development, too. So WOL in a university context will be part of our "Studium Generale" – a widely open and voluntary course on WOL.

SUMMARY

In this article we have shown that students can benefit from the use of WOL especially when forming their teams and building group cohesion. WOL can also help the students to organize themselves in teams, to pursue their own goals and activate the learning process. However, first semester BA groups especially need further support and more structured offerings as the above-mentioned learning sequence when networking with outside networks and exposing their own goals or projects. In other words, WOL will play a role in university learning, especially when group cohesion and accomplishing goals is important, but its application might be adapted. We will be working on that in the future and will provide more insight especially in motivating BA students to network. Besides continuing testing WOL in various higher education settings and adapted, participatory formats, directions of future research could be the comparison of WOL to other learning journey formats, such as the learning journeys provided by Theory U ("the U process") where group practices are also the core of the learning journey (Scharmer, 2009).

REFERENCES

Aten, K., Nardon, L., & Stanko, T. (2016) *Working out loud: Culture, technology, and communication practices of a global team in a virtual world*. Working paper. Link: http://hdl.handle.net/10945/48663

Baron, R. A., & Markman, G. D. (2000) Beyond social capital: How social skills can enhance entrepreneurs' success. *Academy of Management Perspectives, 14*(1), 106–116.

Bell, S. (2010) Project-based learning for the 21st century: Skills for the future. *The clearing house, 83*(2), 39–43.

Bellanca, J., & Brandt, R. (2010) *21st century skills: Rethinking how students learn*. Bloomington: Solution Tree Press.

Baumeister, R. F., & Leary, M. R. (1995) The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Braun, V., & Clarke, V. (2006) Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77–101.

Coleman, J. S. (1990) *Foundations of social theory*. Belknap Press of Harvard University Press.

Collins, J. C. (2001) *Good to great: Why some companies make the leap... and others don't*. Random House.

Connelly, F. M., & Clandinin, D. J. (1990) Stories of experience and narrative inquiry. *Educational Researcher, 19*(5), 2–14.

Creswell, J. W. (2014) *Research design: Qualitative, quantitative, and mixed methods approaches* (4. ed). Thousand Oaks: Sage.

Cubric, M. (2013) An agile method for teaching agile in business schools. *The International Journal of Management Education, 11*(3), 119–131.

Deci, E. L., & Ryan, R. M. (1985) *Intrinsic motivation and self-determination in human behavior*. New York: Springer.

Deci, E. L., Vallerand, R. J., Pelletier, L. G., & Ryan, R. M. (1991) Motivation and education: The self-determination perspective. *Educational Psychologist*, *26*(3–4), 325–346.

Dweck, C. (2015) Carol Dweck revisits the growth mindset. *Education Week, 35*(5), 20–24.

Evans, C. R., & Dion, K. L. (1991) Group cohesion and performance: A meta-analysis. *Small Group Research, 22*(2), 175–186.

Gudmundsdottir, S. (2001) Narrative research on school practice. In V. Richardson (Ed.), *Fourth Handbook for Research on Teaching.* New York: Macmillan, pp. 226-240.

Huber, Á. (2020) Funktioniert die Working-Out-Loud-Methode im universitären (DaF-) Unterricht? *FILOGI, 1*(1). https://doi.org/10.37588/filogi.2020.1.467

Kamat, V. (2012) *Agile manifesto in higher education*. 2012 IEEE Fourth International Conference on Technology for Education, 231–232. https://doi.org/10.1109/T4E.2012.49

Krehbiel, T. C., Salzarulo, P. A., Cosmah, M. L., Forren, J., Gannod, G., Havelka, D., Hulshult, A. R., & Merhout, J. (2017) Agile Manifesto for Teaching and Learning. *Journal of Effective Teaching, 17*(2), 90–111.

Lang, G. (2017) Agile learning: Sprinting through the semester. *Information Systems Education Journal, 15*(3), 14–20.

Scharmer, C. O. (2009) *Theory U: Learning from the future as it emerges*. San Francisco: Berrett-Koehler Publishers.

Schmidt, B. (2019) Working Out Loud – Die menschliche Seite der digitalen Transformation. In M. Seidel (Ed.), *Banking & Innovation 2018/2019.* Wiesbaden: Springer, pp. 215–224. 10.1007/978-3-658-23041-8_12

Schulte, M., Cohen, N. A., & Klein, K. J. (2012) The coevolution of network ties and perceptions of team psychological safety. *Organization Science, 23*(2), 564–581.

Serrat, O. (2017) *Knowledge Solutions. Tools, Methods, and Approaches to Drive Organizational Performance.* Singapore: Springer. https://doi.org/10.1007/978-981-10-0983-9

Stepper, J. (2020) *Working Out Loud.* München: Vahlen.

Stern, D. (2019) *Agiles Studieren.* Eine Einführung für Dozenten. Wiesbaden: Springer.

Thomas, D. R. (2003) *A general inductive approach for qualitative data analysis.* School of Population Health, University of Auckland, New Zealand.

Thomas, D. R. (2006) A General Inductive Approach for Analyzing Qualitative Evaluation Data. *American Journal of Evaluation, 27*(2), 237–246.

Wijnands, W., & Stolze, A. (2019) Transforming education with eduScrum. In Parsons, D. & MacCallum, D. (eds.), *Agile and Lean Concepts for Teaching and Learning*, Singapore: Springer, 95–114.

Wijnands, W., Delhij, A., & von Solingen, R. (2015) *The eduScrum guide.* The rules of the Game. © eduScrum Team.

Working Out Loud (2021) Link: https://workingoutloud.com/en/for-you