

Bachelor Thesis Psychology
Human Resource Development

LIFELONG LEARNING OF PROFESSIONALS: THE IMPORTANCE OF WORKPLACE
LEARNING

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Topic: Understanding the role of structural empowerment and proactivity in informal learning

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Abstract

Every business, every organization, from a little family business to a big concern, needs to adapt to the fast-changing market and working structure to survive on the market. Informal learning, as opposed to formal learning, offers many advantages for an organization and is something that should happen in every individual's workplace to learn and adapt to new circumstances and working methods. This study investigated how structural empowerment and proactivity are related to informal learning as past research suggested a positive influence of those concepts on informal learning. 19 participants from different organizations participated in a diary study which lasted 10 working days, including cross-sectional measurements. The data set was analysed through multi-level model analysis as it had person-level and day-level data per participant.

The results regarding structural empowerment were significant with daily informal learning, however, the hypotheses for proactivity were rejected. As this study was performed with a diary survey that measures behaviour more valid than cross-sectional research (Ohly et al., 2010), it might be the case that proactive behaviour does not influence informal learning as expected by past research. The same might be the case for proactive personality, as the scores did not influence the daily measured informal learning of participants, which was the case for cross-sectionally measured learning. Thus, structural empowerment is a factor that is related to an employee's informal learning on a daily level regardless of their proactivity and can therefore be used at work to understand and help the work of employees. As the sample size was limited, future research should still focus on ways to investigate informal learning using diary studies with all its benefits over cross-sectional research. On a practical level, organizations should focus on providing a supportive environment for their employees to enable them to learn and develop further at their workplace.

Understanding the role of structural empowerment and proactivity in informal learning

Ever since, environmental, technical, cultural, and societal factors have had an impact on our lives. These factors may influence our acting or our environment in at least some parts of life at some time, including the workplace. To withstand these changes and cope with them, people need to be able to learn new things and adapt to new circumstances in their environment. One can take digitalization as an example. It is an ongoing process that had the first automatic office copiers in 1959 (Wolff, 1989) as one of its early milestones which changed the way of working in companies regarding documents and literature. New inventions often cause new ways of operating and offer new opportunities which influence society's everyday life, but of course, also the working industry and many employees at their workplace. To stay up-to-date and to be able to handle new techniques, employees need to learn and adapt to new circumstances. In addition, organizations that provide opportunities for development and learning are needed (Avis, 2010).

Two ways in which organizations can support their employees with opportunities to develop is through formal and informal learning at the workplace. Formal learning is defined as a planned activity that is performed next to an employee's daily work, often in the forms of workshops or lectures which have a specific aim (Manuti et al., 2015). Informal learning, on the other hand, is defined as rather unplanned, autonomous, and happens spontaneously without instructions nor a trainer or a teacher. Furthermore, informal learning can take place during the work routine and other people, e.g., colleagues, can be involved as well (Kyndt & Baert, 2013). Oftentimes, employees experience a problem while working and then search for someone who, in their eyes might have the needed competence, and ask them for help (Manuti et al., 2015). This form of learning can take place when employees reflect on their work in general, or when they learned something new during work (Manuti et al., 2015). Still, informal learning can also be deliberate and intentionally when it occurs that people come across deficits or new ideas and decide to act upon these and compensate or achieve them with learning (Trinder, 2017).

Informal learning is sometimes favoured over formal learning because it is said to be more cost-efficient than formal learning (van Rijn et al., 2013). There are no costs like there would be for organizing a workshop for example. As employees learn while working and without guidance, it takes less time and is tailored to the needs of the individual employee and therefore often more relevant to them than the generalized formal learning content (Hoffman, 2005). Still for informal learning to take place successfully, it might need factors to be present

that are time- or cost-consuming too, structural empowerment that is presented later in this text might be one example. It is said that informal learning is helpful to stay employable and increases employees' capability to adapt to continual changes at their workplace (Joo & Ready, 2012; Van Emmerik et al., 2011). Informal learning seems to help in a fast-changing work environment and is, therefore, an important factor to study as it can help every employee and their employers.

The question is which factors influence the occurrence of informal learning at the workplace. Furthermore, how these factors can be used by companies to stimulate informal learning and what might be criteria for personal assessment based on these insights. It can be said that numerous factors are involved. From the perspective of the organization, e.g., the working environment and the learning culture, or from the perspective of employees, e.g., their self-efficacy or their willingness to learn (Bednall et al., 2014; Kyndt et al., 2016; Lohman, 2005; Manuti et al., 2015). To come up with more concrete results that may be used by companies and employees, the factors structural empowerment and proactivity, which are both linked to informal learning as explained in the following, will be investigated in this study.

With respect to factors impacting informal learning from the perspective of the organization, the concept of structural empowerment plays an important role. Raemdonck et al. (2012) revealed that the more learning opportunities and the more the organizational culture favours learning of low-qualified employees, the more employees participate in it. In sectors that did not provide these factors, participation, and motivation to learn were very low in employees. This might be obvious but mentioning and doing further research on how to increase learning at the workplace is important as any company can make use of it to be more appealing to employees, and in the end, increase an employee's and the organization's overall performance (Clarke, 2005). On a personal level, participating in learning activities successfully once can already increase the likelihood to engage in self-directed learning in the future (Raemdonck et al., 2012). Considering this relationship, it can be interesting for an organization to know how to motivate an employee to engage in informal learning, because once taking part, they are more inclined to engage in it.

With respect to factors impacting informal learning from the perspective of the employee, the concepts of proactive personality and proactive behaviour play an important role. Proactivity, seen as a whole principle with many facets, due to Belschak and Den Hartog (2010), is said to be

positively related to a better performance, on average, when comparing it to employees which are not proactive. As proactivity has many facets, this research views proactive personality and proactive behaviour as distinct factors, as personality is a trait and behaviour a state. This is done because traits of a person are seen as being rather stable over time and states of a person can change more frequently (Tang, 2017). The benefits of measuring behaviour daily will be named below, contrary, as proactive personality is said to be stable over time, only measuring it once will be sufficient. It is also interesting how proactive behaviour is different from proactive personality in terms of their relationship to informal learning.

Diaries allow analysing behaviours in their natural environment which also includes the environment of the situation, e.g., work situation, colleagues, and the mood of the employee. These are all factors that might influence proactive behaviour as well as learning at the workplace (Ohly et al., 2010). Investigating behaviour daily will give more valid information on informal learning and the role of proactive behaviour in this relationship compared to only measuring it cross-sectional (Ohly et al., 2010). To conclude, proactive personality and structural empowerment will be measured cross-sectional with the exception that there will be a pre- and post-test for structural empowerment to cover a potential mere-measurement effect which will be explained later in this study. Proactive behaviour and the learning score of employees will be measured daily through the diaries. The research question for this study is if there is an effect of structural empowerment, proactive behaviour, or proactive personality on informal learning.

Theoretical framework

Structural empowerment on Informal Learning

Structural empowerment at the workplace consists of policies and workplace conditions that provide opportunities, time, materials, and support for employees at their workplace (Amor, Xanthopolou, Calvo & Vazquez, 2021). An example could be that the employers and subordinates are open to discuss different methods of collaborating with their employees or are open to their new insights or questions towards the work. A policy promoting support for learning and making a career is associated with employees that are more likely to engage in learning (Raemdonck et al., 2012). This would mean that employees get access to material or room to learn through the company giving them time to engage in learning. Providing the opportunity, the resources, and time to learn are positively related to workplace learning (Hurtz & Williams, 2009; Maurer et al., 2002) which seems also to be the case for informal learning

(Schulz, & Roßnagel, 2010). Workplace learning seems to be increased through the feedback of co-workers or supervisors (Doornbos et al., 2008) which can also be seen as support for employees which is a factor of informal learning (Amor, Xanthopolou, Calvo & Vazquez, 2021). Faulkener and Laschinger (2008) found out that structural empowerment at the workplace appears to have a positive effect on employees as it seems to increase their perceived respect from the company.

As Lohman (2005) assessed, “an unsupportive organizational culture, [an] unwillingness of others to participate in informal learning activities, and [an] inaccessibility of subject matter experts” (Lohman, 2005, p. 501) hinders employees to participate in informal learning. Additionally, the sample of Lohman’s (2005) study indicated that missing time in a workday and when the physical distance between one and another colleague are too far away from each other are factors that hindered them to engage in informal learning. The factors that negatively influenced the informal learning in this study seem to be the counterpart of the definition of structural learning which is said to have a positive influence of informal learning. Thus, the first hypothesis is the following:

H1: Employees who perceive more structural empowerment at their workplace, on average, engage more in informal learning than employees who perceive less structural empowerment at their workplace.

Additionally, Morwitz and Fitzsimons (2004) showed that merely asking a question can influence the awareness and the attitudes of participants towards the content of the question and that participants’ intentions to it became more positive. Thus, after having been reminded of something, in this case, the support or opportunities perceived from the organization, it could be the case that asked people are more aware of the process than before they were asked. When people took part in the pre-test, and in the diary, both together can be seen as an intervention as the employees needed to reflect on their thoughts and behaviours and it might be that this could have influence on the post-test as shown by Morwitz and Fitzsimons (2004). Thus, employees might have become aware of things that already exist at their workplace and are capable to use or aware of them after being asked about them for the first time. Therefore, structural empowerment is measured as a pre- and post-test to see if the questionnaire itself and the diary had an impact on the attitude and behaviour of participants towards structural empowerment. If it has an impact, this finding can be used for practical implications in organization to increase the

awareness of structural empowerment. In turn, this could be used to increase informal learning, but only if structural empowerment influences informal learning, as investigated in hypothesis one.

H1b: There is, on average, a higher perception of structural empowerment for testing after than before the diary study among employees.

Proactivity on Informal Learning

Another factor that should be analysed further considering informal learning is proactivity. Some examples of proactivity are "a proactive personality, personal initiative, voice, and taking charge" (Thomas et al., 2010, p. 275) which were all related to employee's performance and organizational commitment (Thomas et al., 2010). As said before, proactive personality and proactive behaviour will be investigated separately, still, they are connected as both are related to proactivity (Thomas et al., 2010). For the sake of this research's measurement, a proactive personality is defined as being "capable of intentionally altering situations in ways other than selection, cognitive restructuring, (unintentional) evocation, or (intentional) manipulation of social responses by others" (Bateman & Crant, 1993, p. 104).

It will be investigated if proactive personality is related to informal learning and if so, how high this influence is. Noe et al. (2014) related a high proactive personality to being more engaged in activities like informal learning because one is also more inclined to participate in problem-solving or aiming for improvement more than those people who are more passive. They base this link also on the meta-analysis of Fuller, and Maler (2009) who investigated that proactive personality is also linked to several factors that increase the likelihood for career success, such as job performance. Thus, one could argue that informal learning might also have an influence on the job performance of an employee. In addition, Raemdonck et al. (2012) found a link between proactivity of employees and self-directed learning. Song and Bonk (2016), see self-directed learning as a part of informal learning, therefore, this research investigates the relationship of proactive personality and informal learning because there is no research on these factors and these particular relationships measured daily yet.

Regardless of the factor structural empowerment, it needs to be assessed how the participants score on proactive personality to be able to distinguish which factor has the most effective influence on informal learning to see on which factor an organization should focus to

increase effectiveness and development of employees. Therefore, the second hypothesis is the following.

H2: Employees with a high proactive personality, on average, engage more in informal learning than employees with a low proactive personality.

Based on the same reasoning as for proactive personality, it is of interest to measure the effects of proactive behaviour on informal learning. Proactive behaviour is defined as “an employee’s self-initiated, expected and proactive work behaviour” (Parker et al., 2001) oriented towards future and change and the opposite of reactive passive behaviour (Belschak et al., 2010). As said, proactive personality is seen as relatively set for an individual and if an employee does score low, it will be interesting to see how influential proactive behaviour is regardless of the personality score in this relationship because it might be the case that a person with low proactive personality can still behave proactive or vice versa. Thus, proactive behaviour might compensate a low proactive personality or even is independent of it.

Proactive behaviour is related to proactivity (Thomas et al., 2010) and proactivity is said to be somehow positively related to self-directed learning (Raemdonck et al., 2012). In general, if an employee did participate in learning at the workplace before, the likelihood to engage in self-directed learning in the future increases (Raemdonck et al., 2012), based on this example, one could argue that this actively participating in learning can be seen as proactive behaviour. In addition, Song and Bonk (2016) investigated that self-directed learning is a part of informal learning. Due to these relationships and findings, it seems that proactive behaviour is involved in informal learning, and therefore, it will be investigated how proactive behaviour influences informal learning. The hypothesis is the following.

H3: Employees who show more proactive behaviour, on average, engage more in informal learning than those who show less proactive behaviour.

Structural Empowerment and Proactivity on Informal Learning

Next, it will be investigated if there is a relation between structural empowerment and proactivity when it comes to informal learning. Employees with proactive tendencies who work in organizations whose policies and work environment favour learning, are said to be likely to engage in self-directed learning (Raemdonck et al., 2012), which is related to informal learning (Raemdonck et al., 2012) and self-directness is seen as a part of informal learning (Song &

Bonk, 2016). Nevertheless, in the study of Raemdonck et al. (2012), these assumptions could not be confirmed and therefore this research tries to bring more clarity on this point.

There seems to be an interplay between an employee’s proactivity and the support that the organization provides. At this point, it will be investigated if structural empowerment moderates the relationship between proactive personality informal learning. The moderation of structural empowerment is interesting because one can see if there is a high engagement in informal learning when both factors, proactive personality, and structural empowerment, are high. According to Fairchild and McQuillin (2010), this would be a synergistic interaction effect because the moderator, here structural empowerment, enhances the effect that proactive personality has on informal learning which can be negative or positive. If there is a positive moderation of structural empowerment, this may suggest that it is valuable to have employees with a proactive personality and that their likelihood to engage in informal learning can even be increased by providing structural empowerment. In this scenario, there would be a moderation effect (Baron & Kenny, 1986) that indicates that if proactive personality is high and structural empowerment is present too, there will be higher engagement in informal learning than when one of both is low or not present as can be seen in Table 1. But if there is no interaction effect and hypothesis one was confirmed, this insight even increases the value of structural empowerment as this variable might outperform the need of employees with proactive personalities. The hypothesis is the following.

H4: Structural empowerment moderates the relationship between proactive personality and informal learning.

Table 1

Moderation of Structural Empowerment – Expected Effects

| | | Structural | Empowerment |
|---|------|------------|-------------|
| Proactive behaviour and therefore an effect on informal learning? | | High | Low |
| Proactive | High | Yes | Yes |
| Personality | Low | Yes | No |

Lastly, it will be investigated how structural empowerment, proactive behaviour, and informal learning interact with each other. In a recent study, Chunhui (2021) indicated that organizational support moderates the relationship between proactive behaviour and individual innovation performance at the workplace. Organizational support and individual innovation performance are different concepts than structural empowerment and informal learning, nevertheless, they seem to have some intersections. Organizational support is related to structural empowerment, e.g., a supporting policy or environment can be seen as organizational support and these examples are also part of structural empowerment (Amor, Xanthopolou, Calvo & Vazquez, 2021). Individual innovation performance is also an outcome of an employee's behaviour as informal learning is one. In addition, Belschak et al. (2010) found out that it is possible to enable employees to become proactive and innovative by providing organizational support. Thus, there are similarities, but the concepts have different definitions which urge research to clarify the relationship between the concepts of this study.

Parker and Collins (2008) did a study on proactive behaviour to investigate which specific behaviours are part of this concept, next to other principles they also looked on the fit between the individual and the organization. One of their findings was that the learning goal orientation of an employee leads to proactive behaviour. Thus, it might be the case that perceived structural empowerment, which is said to be related to informal learning (Schulz, & Roßnagel, 2010), increases proactive behaviour when it provides the opportunity to learn. This even might have an influence on, in terms of Parker and Collins (2008), the learning goal orientation of the employee and therefore increases proactive behaviour which in turn influences informal learning. These findings and those of Chunhui (2021) are different concepts than those of this study but they are all in the same context, they look at the relationship between an employee and its organization, looking at the characteristics and behaviour of the employees and organizations and to which outcomes they produce together.

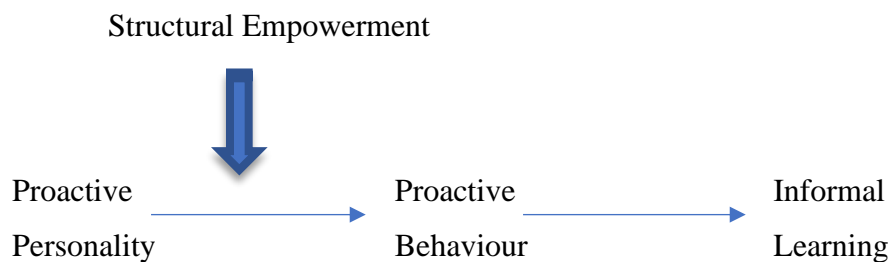
For this aspect of the study there are several options for its results. If there is a moderation effect (Baron & Kenny, 1986), it could be that structural empowerment moderates the relationship between proactive personality and proactive behaviour, which in turn influences informal learning. According to Cohen et al. (2003) and Fairchild and McQuillin (2010) this description of a moderation is called a synergistic interaction effect. Thus, a change in the moderator variable, here structural empowerment, causes an enhancement of the effect that

proactive personality has on proactive behaviour. If both levels, the proactive personality, and the perceived structural empowerment are high, proactive behaviour will be even higher. If both are low, proactive behaviour will be lower, and one way or the other, is hypothesized to influence informal learning. On the other hand, the moderation may even compensate a low proactive personality as there is still an effect on informal learning through structural empowerment and proactive behaviour that can act independently of proactive personality. This would be a buffering interaction effect (Fairchild & McQuillin, 2010) because a high structural empowerment might compensate the negative effect of a low proactive personality. Thus, proactive behaviour could then still take place through the impact of structural empowerment regardless a low proactive personality. Lastly, if there is no structural empowerment, it is hypothesized that proactive behaviour is less likely to occur and therefore also the probability of informal learning decreases, unless there is a high proactive personality. All these effects can be seen in the Figure 1 and Table 1. Since there is rarely any research on this relationship, the last hypothesis is the following.

H5: Structural empowerment moderates the relationship between proactive personality and proactive behaviour which in turn influences the frequency of informal learning.

Figure 1

Moderation of Structural Empowerment on Proactivity (Personality and Behaviour)



Method

Participants

Participants ($N= 19$) were either working full-time (5) or part-time (14) in different companies in Germany. Most of them (52.63%) worked in the fitness sector and the other participants worked in various sectors. The participants were reached through the network of the researcher, and in cooperation with a company from the fitness sector. To assure that only full-time or part-time employees could take part in the study, everyone that worked, on average, less than 20 hours per week was excluded from the study. This was done by asking participants if they work more or less than 20 hours per week while assessing the demographics before starting the survey.

They were all adults between the age of 18 and 51. The gender distribution in the sample was as follows: ten female (52.63%), eight male (42.11%), and one participant who indicated other (5.26%). 17 of them were German and two participants had a different nationality but all of them lived and worked in Germany. The majority of participants completed “Fach-; Hochschulreife (Fach-; Abitur) – VWO” (9), three completed a bachelor’s degree, two completed a “Meister/ Techniker”, two completed or still are in the “Berufsschule/ Ausbildung - MBO”, two completed the “mittlere Reife (Realschule) - HAVO”, and one completed the “Berufs- Bildungsreife (Hauptschule) – VMBO”.

The participants were invited with a link to participate via mail, social media, including WhatsApp and Instagram, or via the researchers in person. Participants were only able to take part in the study if they have proficiency in English, to be able to fill in the questionnaire and understand the questions accordingly.

Materials

The materials used in the study were all integrated into one application that was provided through a link to the participants. Both surveys and the diary study were integrated into an application called TIIM-app which is described as the ‘Twente Intervention and Interaction Machine’ and was developed within the BMSLab at the University of Twente in Enschede in the Netherlands. This app enables the researcher to add all the needed measurements into the app, combining them in the way and the order that participants need to fill it in. Thus, the questionnaires can be combined into one big questionnaire, or send out separate on different days. There is also the possibility to set timers for when a specific questionnaire should be

available, and one can send out reminders to participants. In this application, participants need to sign up once and then can fill in the whole study in different modules and on days that the researcher releases them. After the study is completed, the data can be downloaded for analysis.

The first questionnaire measuring proactive personality was the “Proactive Personality Scale” from Bateman and Crant (1993), it is measured with a 7-point Likert scale and had 17 items. Secondly, structural empowerment was measured with the CWEQ-II survey which measures an overall construct consisting of seven components: “formal power, informal power, and perceived access to the work empowerment structures of opportunity, information, support and resources” (Laschinger et al., 2004). As the CWEQ-II was invented for the nursing context, some items needed to be adapted to a more general working context. For the second question, answer option two was changed to “The current state of the company.”. For the fifth question, answer option three was changed to “The amount of visibility of my work-related activities within the company.”. For the sixth question, answer option one was changed to “Collaborating with colleagues.” and answer option four was changed to “Seeking out ideas from professionals with a different profession. E.g., physiotherapists, team sport trainers, teachers, etc.”. The CWEQ-II survey was measured with a 5-Point Likert scale and had 21 items. Lastly, the diary study from Appendix A was provided to the participants within the TIIM-app to assess their informal learning and impressions of it.

The items asking about learning in the diary study are based on Endedijk et al.’s (2015) structured learning report. The first six items were imported from the initial report and items seven to nine were added from van Woerkom et al. (2015). The diary starts with a formal question about the last three digits of a participant’s phone number to assign each day to the respective participant and to enable anonymity. In the second item, participants needed to indicate how much they learned from work on a 5-Point Likert Scale. Third, it was asked if they could recall something that they learned, if they indicated yes, they got to question four, if they indicated no, they were directed to the end of the survey for this day. In question four, participants needed to state what they learned, which could be done in bullet points. In question five it needed to be indicated what other people were involved. In question six, participants needed to provide the main reason for why they learned. The multiple answers for question five and six questions can be seen in Appendix A, participants could tick more than one option. Only the mean score for each participant of the learning score was used for the analysis, but questions

one to six need to be seen as a whole. They were included because they were part of an already successfully used diary survey for learning (Endedijk et al., 2015). In addition, the participants might know after the first day that, if they indicate a learning score and that they can recall something from work, they needed to think more elaborative on it. The researchers chose to pose the questions in such a way because it might let people think more about their learning in-depth compared to when they only need to indicate a number each day without elaboration on it.

To measure proactive behaviour, questions seven to nine were added from van Woerkom et al. (2015) which are also measured daily and through a 5-Point Likert Scale. Participants needed to indicate if they actively attacked problems, if they did more than they were asked to do and lastly, if they took the initiative when others did not, all question can be seen in Appendix A. The reason the items were measured in this way was that it should become clear to the participant that the proactive behaviour should be seen in relation to learning and not in general. Asking it the other way around might have yielded more general answers that were not related to learning.

Design

The study consisted of a quantitative within-subject design with structural empowerment, proactive personality, and proactive behaviour as independent variables and informal learning as dependent variable. Structural empowerment and proactive personality were measured daily, still a pre- and a post-test was done for structural empowerment. During the study, participants were asked to fill out two surveys (one with pre- and post-test) and a diary study across a timeframe of 10 working days.

Procedure

Participants received a link through which they get to the TIIM-app on the day when they got a written and verbal instructions about aims, activities, burdens, and risks of the research before they decide whether to take part in the research. To take part in the research, they needed to sign an informed consent. The first step the participants needed to take in the TIIM-app was to state their last three digits of their phone number, demographic variables, in terms of gender, age, nationality, occupation, country of residence, and level of education. Participants who indicated that they are not working full-time were redirected to the last page. As the last step, the

participants were thanked for their participation and reminded that they can contact the researchers for any comments or information regarding the study.

Before the diary study started, in total two components of a survey needed to be filled out by the participants. One measurement (Proactive Personality Scale) assessed the proactive personality of employees (Bateman & Crant, 1993), one assessed how employees perceive structural empowerment (CWEQ-II) (Laschinger et al., 2004). Then the diary study was provided daily for 10 workdays to assess how the participants indicate their informal learning and how they rate their proactive behaviour. Participants received a reminder to complete the diary twice a day. Completing the diary study approximately took the participants about two to five minutes per day.

After the diary study was completed, participants needed to be fill out the CWEQ-II survey once more to compare pre-and post-test. This was done to check a possible mere-measurement effect based on Morwitz and Fitzsimons (2004) showed that merely asking a question can influence the awareness and the attitudes of participants towards the content of the question.

Data Analysis

This study was treated as correlational research, as it was investigated if the factors structural empowerment, proactive personality, or proactive behaviour influence the frequency of informal learning. In addition, it was also looked at how the measurement itself affected the score on perceived structural empowerment. The survey data was imported from the TIIM-application into the statistical programme SPSS where the analysis was performed. Thus, the correlations between the independent variables structural empowerment, proactive personality, proactive behaviour, and the dependent variable informal learning were investigated via a multilevel model analysis.

In this case, participants provided cross-sectional data on the personal level: The demographic data, the score on the CWEQ-II, and the score on the Proactive Personality Scale. In addition, there is also data on the daily level, which are the scores on the items from the Structured Learning Report and the proactive behaviour scale.

Before performing the multilevel analysis, descriptive statistics of the participants and correlations between the demographics and the variables of proactive personality, proactive behaviour, the score of CWEQ-II, and the learning score of the participants have been done.

To perform a multilevel analysis, the data needed to be prepared. In the beginning, a person and a daily level data set existed, which needed to be merged after a few steps into one dataset on a daily level with adapted personal data. First, mean scores on person level of the proactivity scale and the CWEQ-II scale and of the daily proactive behaviour, and the daily learning score were calculated. The learning score was the mean score from the daily indications of learning that the participants needed to indicate in the diary survey. These scores needed to be centred to be able to analyse them with a multilevel model, the day-level scores were group-mean centred, and the personal data were grand-mean centred. To be able to perform the moderation analysis of hypotheses four and five, and an interaction term for the CWEQ-II and proactive personality was created. At this point, everything was prepared for the analysis and the data was merged to the day-level so that the person-level data exists for every single day.

To statistically prove the need for a multilevel model, the Interclass Correlation (ICC) was calculated. The result for this is shown in the Results section. To test the first hypothesis, the effect of structural empowerment on informal learning was analysed. This was done by entering the grand-mean centred CWEQ-II score as a fixed effect in a multilevel model, with the daily perceived learning score as the dependent variable.

For hypothesis one b, which tested a possible mere-measurement effect of structural empowerment, a Paired Sample T-test was performed with the normal mean scores of the pre- and the post-test of structural empowerment.

For the second hypothesis, testing the effect of proactive personality on workplace learning, the grand-mean centred score on proactive personality was added as a fixed effect and the daily perceived learning score as the dependent variable.

Thirdly, to test the effect of proactive behaviour on workplace learning, the group-mean centred score on proactive behaviour was inserted as a fixed effect with the daily perceived learning score as the dependent variable.

For hypothesis four, the created interaction variable (CWEQ-II and proactive personality) and both factors solely needed to be added as fixed factors with daily perceived learning as the dependent variable.

Lastly the same was done to test hypothesis five and the moderation of the interaction variable (CWEQ-II and proactive personality) on proactive behaviour which then, in turn, might

influence informal learning. The difference is that, in this case, the dependent variable needs to be the proactive behaviour.

Results

Correlations

The correlations, means, and standard deviations between all involved relevant study variables and the participant's demographical information (i.e., correlations for person means) are presented in table two. Proactive personality and structural empowerment (CWEQ-II) were found to be moderately (Akoglu, 2018) correlated, $r(17) = 0.49$, $p = .033$, which means that having a higher proactive personality correlates with perceiving a higher structural empowerment. In hypotheses four and five, a moderation effect with these two variables was hypothesized.

Table 2

Correlations

| | 1. | 2. | 3. | 4. | 5. | 6. | 7. | Mean | Std. Deviation |
|---------------------------|-------|-------|-------|--------|--------|------|----|------|----------------|
| 1. Workplace learning | | | | | | | | 3.13 | 0.88 |
| 2. Proactive behaviour | 0.24 | | | | | | | 3.28 | 0.58 |
| 3. Proactive personality | 0.06 | 0.15 | | | | | | 4.73 | 0.81 |
| 4. Structural empowerment | 0.24 | 0.17 | 0.49* | | | | | 4.38 | 0.75 |
| 5. Nationality | -0.15 | 0.12 | 0.22 | 0.30 | | | | 2.79 | 0.63 |
| 6. Gender | -0.10 | -0.20 | 0.15 | 0.00 | -0.08 | | | 2.37 | 0.60 |
| 7. Education | -0.40 | -0.39 | -0.25 | -0.54* | -0.53* | 0.45 | | 3.63 | 1.57 |

*. Correlation is significant at the 0.05 level (2-tailed).

$N = 19$; nationality: german = 3, dutch = 2, other = 1.

gender: male = 3; female = 2; other: 1.

education: Berufs- Bildungsreife (Hauptschule) – VMBO = 1, mittlere Reife (Realschule) – HAVO = 2, Fach-; Hochschulreife (Fach-; Abitur) – VWO = 3, Berufsschule/ Ausbildung – MBO = 4, Bachelor's degrees = 5, Master's degree = 6, Meister/ Techniker = 7.

Intraclass Correlation

The unconditional model yielded a statistically insignificant Participant variance of 0.602 along with a statistically significant residual variance of 1.39. The ICC was calculated to be 0.302 ($ICC: 0.603 \div (0.603 + 1.39) = 0.30$). Which indicates that 30.2% of the total variance of the learning score is associated with the participant groupings. The assumption that the

learning score is independent of the learning scores is therefore rejected, which justifies using multilevel modelling (Musca et al., 2011).

H1: Employees who perceive more structural empowerment at their workplace, on average, engage more in informal learning than employees who perceive less structural empowerment at their workplace.

The learning scores of each participant were analysed with a multilevel model, where the dependent variable learning score was tested with the independent variable structural empowerment (CWEQ-II). The results demonstrated that there is no significant effect of structural empowerment on learning score $F(1, 19) = 1.18, p = .292$, which means that employees who perceive more structural empowerment in the workplace score similar on daily learning to employees who perceive less structural empowerment. Thus, hypothesis one for the pre-test can be rejected as there is no significant main effect.

Contrary to the pre-test, which was performed before the diary study started, the post-test on the last day of the diary showed a significant main effect. The results demonstrated that there is a significant effect of structural empowerment on learning score $F(1, 18) = 5.41, p = .032$, which means that, employees who perceive more structural empowerment in the workplace in general score, on average, higher on daily learning than employees who perceive less structural empowerment. Thus, hypothesis one for the post-test can be confirmed as there is a significant main effect.

H1b: There is, on average, a higher perception of structural empowerment for testing after than before the diary study among employees.

In addition, for a potential mere measurement effect of structural empowerment, a pre- and post-test was performed which was analysed with a Paired Sample T-test. The sample size for this test was 18 instead of 19 as one participant needed to be excluded, as they failed to perform the post-test. There was no significant difference between the first test ($M=4.37, SD=0.77$) and the second test ($M=4.28, SD=0.98$), $T=0.64, p=.532$. Thus, hypothesis one b can be rejected.

H2: Employees with a high proactive personality, on average, engage more in informal learning than employees with a low proactive personality.

The learning scores of each participant were analysed with a multilevel model, where the dependent variable learning score was tested with the independent variable proactive personality. The results demonstrated that there is no significant effect of proactive personality on learning score $F(1, 19) = .08, p = .780$, which means that employees with a high proactive personality in the workplace in general score similar on daily learning to employees with a low proactive personality. Thus, hypothesis two can be rejected as there is no significant main effect.

H3: Employees who show more proactive behaviour, on average, engage more in informal learning than those who show less proactive behaviour.

The learning scores of each participant were analysed with a multilevel model, where the dependent variable learning score was tested with the independent variable proactive behaviour. The results demonstrated that there is no significant effect of proactive behaviour on learning score $F(1, 108) = 1.11, p = .293$, which means that there seems to be no effect of proactive behaviour on informal learning, which means that employees who show more proactive behaviour in the workplace on a daily level score similar on daily learning to employees who show less proactive behaviour. Thus, hypothesis three can be rejected as there is no significant main effect.

H4: Structural empowerment moderates the relationship between proactive personality and informal learning.

The learning scores of each participant were analysed with a multilevel model, where the dependent variable learning score was tested with the independent variables, structural empowerment (CWEQ-II), proactive personality, and the interaction term of structural empowerment and proactive personality. The results demonstrated that there is no significant moderation of these variables on the learning score because the interaction effect had the following result, $F(1, 19) = 0.74, p = .401$, which means that structural empowerment does not moderate the relationship between proactive personality and informal learning. In addition, neither structural empowerment, $F(1, 19) = 0.47, p = .503$, nor proactive personality, $F(1, 19) = 0.01, p = .937$ were significant. Thus, hypothesis four can be rejected as there is no significant moderation.

In addition, also the results for this hypothesis with the post-test of structural empowerment could not confirm the hypothesis. The results demonstrated that there is no significant moderation of these variables on the learning score because the interaction effect, with the post-score of CWEQ-II; had the following result, $F(1, 18) = 0.79, p = .386$, which means that structural empowerment does not moderate the relationship between proactive personality and informal learning. Still, the post-test of structural empowerment, $F(1, 18) = 4.72, p = .043$ had a significant effect on informal learning but proactive personality, $F(1, 18) = 0.54, p = .473$ was not significant. The fact that the structural empowerment is still significant in a model where it is combined with the interaction effect and proactive personality indicates that there is very little overlap between structural empowerment and proactive personality.

H5: Structural empowerment moderates the relationship between proactive personality and proactive behaviour which in turn influences the frequency of informal learning.

The proposed model is already invalidated as neither proactive behaviour nor proactive personality or structural empowerment have an influence on the learning score because the third hypothesis was already rejected. Still, it was investigated whether proactive personality was moderated by structural empowerment to predict proactive behaviour. Nevertheless, the results demonstrated that there is also no significant interaction effect $F(1, 18.60) = 0.00, p = .969$, which means that structural empowerment does not moderate the relationship between proactive personality and proactive behaviour. Again, structural empowerment, $F(1, 14.83) = 0.21, p = .650$, nor proactive personality, $F(1, 17.65) = 0.08, p = .775$ were significant as predictors either. Thus, hypothesis five can also be rejected because there is no moderation on proactive behaviour, nor an effect from proactive behaviour on informal learning.

Again, the hypothesis was also tested with this hypothesis with the post-test of structural empowerment could not confirm this hypothesis, there was also no significant effect for the post-test of structural empowerment. The results demonstrated that there is also no significant interaction effect $F(1, 18.54) = 0.43, p = .519$, which means that structural empowerment does not moderate the relationship between proactive behaviour. As said, neither the post-test of structural empowerment, $F(1, 15.29) = 0.39, p = .543$, nor proactive personality, $F(1, 16.56) = 0.13, p = .724$ were significant.

Discussion

This study aimed to investigate if structural empowerment and proactivity influence the occurrence of informal learning at the workplace. Through the diary study, it aimed to expand the knowledge on the relationship between structural empowerment, a proactive personality, and proactive behaviour by providing day-level data on learning and behaviour, to gain more clarity and provide more meaningful data than cross-sectional data does (Ohly et al., 2010). Structural empowerment, a proactive personality, and proactive behaviour, due to various sources seem to be positively related to an employee's engagement in learning or behaving at the workplace (Chunhui, 2021; Raemdonck et al., 2012; Schulz, & Roßnagel, 2010; Faulkner, & Laschinger, 2008; Belschak et al., 2010). As mentioned before, informal learning has many benefits for employees and organizations at the workplace (Hoffman, 2005; Joo & Ready, 2012; Van Emmerik et al., 2011) and should be a topic of interest for the human resource sector. It is important to know which requirements, in terms of the environment of the workplace and personal characteristics of the employees, are important to promote engagement in informal learning. It is also interesting to compare the influence of workplace and personal factors on informal learning, as one of them might outperform the other one, which is again a valuable insight for employers. Still, only hypothesis, and therefore the impact of structural empowerment was confirmed, all other hypotheses were rejected.

One important thing that applies to all hypotheses is the value of diary studies, as informal learning and proactive behaviour were measured daily instead cross-sectional. Ohly et al. (2010) showed that daily measurements assess data more valid than cross-sectional measurements as participants fill them in their natural environment, here after their workday at home or even while working, and because of the frequency of retrospective bias for reporting the data is reduced compared to cross-sectional measurements. The validity increases because the participants report their experiences on a daily level and are not retrospective for a longer timeframe (Ohly et al., 2010).

Structural empowerment on Informal Learning

In hypothesis one, structural empowerment was assessed to see what impact it has on informal learning. It was expected that employees who perceive more structural empowerment at their workplace, on average, engage more in informal learning than employees who perceive less

structural empowerment. Structural empowerment was measured cross-sectional, and the learning outcome was measured on a daily level. The analysis was done twice, once with the pre-test of structural empowerment and once with its post-test after the diary study.

Results indicated that there is a positive effect of perceived structural empowerment on informal learning of employees. This is consistent with the finding of Faulkner, and Laschinger (2008), who point out that employers should not ignore the effect of structural empowerment as every employee seems to have the possibility to benefit from it. The results of the pre-test showed no significant effect on informal learning, contrary, the results of the post-test showed a significant effect on the informal learning score. Thus, after taking part in the pre-test, and after completing the diary study for 10 days, it seems that the perception of structural empowerment in their workplace changed, but the mean score did not differ significantly.

This finding can have many different reasons. On the one hand, it could be that being confronted with all these learning-related topics changed the awareness of employees. On the other hand, it could be that, as hypothesized in hypothesis one b, that merely asking the question, here the pre-test of CWEQ-II, did have an influence on the attitudes and perceptions of the content of the question (Morwitz & Fritzsims, 2004) and therefore made them aware of what they already have in their environment and how they can use it. Based on this sample, this hypothesis was rejected and therefore this reasoning does not apply here as the results were non-significant. This line of reasoning was repeated to include all possible reasons and to inspire other researchers.

Sana et al., (2020) investigated how pre-tests influence the learning of participants, they did not focus on awareness but on using it in learning. Still, there can be some similarities and hints for further research when viewing the findings of this hypothesis in the light of their research. One finding from them was that “pre-testing not only directs attention to key information but could also encourage students to engage in feedback-seeking behaviours” (Sana et al., 2020, p. 9). They point out that there is an effect of pre-testing in terms of attention towards the topic, therefore, the attention of participants might have been increased towards structural empowerment and they might have looked for its opportunities more frequently in their organization than before which then led to their scores on the post-tests. What is known from this analysis by now is, that it is unknown how and why the post-test was significant while the pre-test and the comparison between pre and post-test were non-significant. This unclear

finding makes it even more important to look at this relationship in more detail in future research. Thus, future researchers should compare both scores of the participants in detail, looking at the individual scores to see if one can see a pattern in how they changed to get a clue on what caused the post-test to become significant.

Proactivity on Informal Learning

As a proactive personality is also associated with taking the initiative for action in general (Raemdonck et al., 2012), it was also tested how the frequency of this trait influences informal learning in this sample. It was hypothesised that there will be a positive effect on learning, as past research suggests, proactive people will take the initiative and opportunities to learn when possible (Raemdonck et al., 2012). Proactive personality, as a trait, was measured cross-sectional at the beginning of the study and learning on a daily level.

It was expected that there will be an advantage for people with a high proactive personality in the frequency of informal learning, but this hypothesis was rejected. It could also be the case that the influence of proactive personality is not as strong as expected as the data from diary studies takes the fluctuations in daily learning into account which cross-sectional data might not cover (Ohly et al., 2010). Thus, it can be the case that past cross-sectional research may have not covered all the fluctuations that diaries cover and therefore the actual effect of proactive personality, as shown in this study, may not be this strong.

Another reason could be that in some organizations the atmosphere is so bad that it hinders employees to be motivated or developing themselves further. Lohman (2005) already showed that an unsupportive organizational climate or unmotivated colleagues can prevent employees to take the initiative towards learning at their workplace, this would be the opposite of perceived structural empowerment. Thus, if this was the case for some of the organizations in this sample, this could have even hindered people who have a high score on proactive personality to engage in informal learning. If it was the case that this factor influenced informal learning and how people could express their proactive personality, the analysis did not cover all the relevant factors in this relationship, and it would be something that future research should cover.

Proactive personality measures a trait, which is rather stable, so it was also interesting to investigate proactive behaviour in terms of a state which can change more frequently (Tang, 2017). It was hypothesized that employees who show more proactive behaviour, on average, engage more in informal learning than those who show less proactive behaviour. Proactive

personality and informal learning were both measured with the same diary on a daily level. Also, this hypothesis was rejected. Keeping the discussion from the possible effect of the diary study or the mere-measurement effect on the participant's perception from hypothesis one in mind, it could also be the case that the participant's perception of their proactive behaviour was also influenced in this case. Informal learning and proactive behaviour were measured daily together and after each other starting with informal learning. It could be that this connection influenced the perception of proactive behaviour because they might have looked at their proactive behaviour only in terms of learning. Thus, if measured in a different order or separate from each other, the findings may differ.

It was expected that proactive behaviour has a positive effect on informal learning as it seems to be associated with a positive influence on employees and their workplace (Belschak et al., 2010; Baer & Frese, 2002). Contrary, other researchers suggest that proactive behaviour, under certain circumstances can be the reason for being ineffective and negative outcomes in organizations (Parker et al., 2019). In a review on past research on proactivity, Parker et al. (2019) concluded that proactivity needs to be in line with the goals of those around the person that behaves proactively to be effective, in this case, the organization and the colleagues should strive for the same goals as the proactive employee. In addition, they reasoned that the proactive person should be aware of their social context, and the relationships within this context. Lastly, they should be able to self-regulate themselves in the process of behaving proactively. The crux of this reasoning is, that all these factors have an influence on proactive behaviour to be effective and if they are present, the effect is positive, but if not, proactive behaviour could also be ineffective and have negative outcomes when the proactive behaviour is not in line with the expectations of the person's environment (Parker et al., 2019). Thus, it could also be the case that proactive behaviour, whether with a high or low frequency, is not a strong predictor of learning or that the relationship is more complicated than expected and that its influence needs further investigation.

Structural Empowerment and Proactivity on Informal Learning

As all these factors were measured solely regarding their influence on informal learning, the aim was also to investigate the relationship between the distinct factors, looking for possible moderation effects. It was hypothesized that there might be a moderation of structural empowerment in the relationship between proactive personality on informal learning. It was

expected that those who have a high proactive personality and perceive structural empowerment, on average, also have a higher score on informal learning. As said, Chunhui (2021) has done a similar study on comparable factors, and they showed a significant result for this relationship. Therefore, the present study handled similar factors too to see if the results from a collectivistic culture can be replicated in western culture, and in general, to see if they found valid results.

It was expected that if one has, on average, a rather high proactive personality and then in addition also receives structural empowerment, that person will score even higher in informal learning. The same was done for hypothesis five but here, proactive personality was seen as the dependent variable which could be moderated through structural empowerment. Here, it was expected that, if one has, on average, a rather high proactive personality and then in addition also receives structural empowerment, that person will score even higher on proactive behaviour. Proactive personality and structural empowerment were measured cross-sectionally, and proactive behaviour and informal learning were measured in the diary. Contrary to the expectations, both hypotheses were rejected and there was no moderation effect of structural empowerment, neither on the relationship between proactive personality and informal learning nor on the relationship between proactive personality and proactive behaviour.

Still, in hypothesis four with informal learning as the dependent variable, the effect of structural empowerment remained significant and the other factors non-significant. This suggested that there is little overlap between both factors and may even emphasize the need to do more research on the effect of structural empowerment on informal learning. Future research could be promising because the effect remains significant even when measured with proactive personality which was hypothesized to be related with informal learning too. In addition, hypothesis one was confirmed and the effect of structural empowerment on informal learning in hypothesis four was still significant. This might suggest that for informal learning, it does not matter which degree of proactive personality one has because structural empowerment influences informal learning anyway.

As both last hypotheses were non-significant, again the sample size could have been too small to show the effect of this relationship. Due to that Chunhui's (2021) study was done in a collectivistic culture (sample from China), the differences from a western culture (sample from Germany) can be a reason this study could not replicate the moderation effects. This question can be raised because Villalobos et al. (2020) recently found out that the concept of proactivity

related to work seems to be perceived differently in collectivistic cultures than in western cultures. Thus, due to their different definitions or perception of it, employees in collectivistic culture can have a different opinion on this or behave differently at work than those in an individualistic culture when they think about proactivity. Therefore, this might be the reason why the findings from Chunhui's (2021) study in China could not be replicated in a western individualistic culture like Germany.

Lastly, it needs to be mentioned that the correlation between having a proactive personality and the rated structural empowerment is moderately significant and positive which can be seen in Table 2. Thus, it seems that being proactive as a person coincides with how positive people see their environment, or, how they choose their job because there seems to be a reason why some people who score high on the proactive personality scale, also rate the structural empowerment in their company higher. For future research, this can be a topic of interest to see if there is a difference in how people choose their job or how they see their environment based on the frequency of having a proactive personality.

Strengths, limitations, and future directions

One main strength of this research is that it measured proactive behaviour and learning behaviour daily, with ten measurements per participant. Diary studies, compared to cross-sectional data, are a more suitable measurement for behaviours as they can measure the daily fluctuations that may occur due to various circumstances in the environment of the participant and they increase the validity of data (Ohly et al., 2010). This fact is one advantage over most past research that used cross-sectional data for the variables investigated in this study.

In addition, hypothesis one, at least for the post-test was confirmed and can inspire future research on the effect of structural empowerment and the effect of diary studies or pretesting on informal learning of employees at the workplace. Another finding from this research that could inspire future research is the correlation between proactive personality and structural empowerment.

As said already, the sample size might have been one limitation of this study as it had only 19 participants in general, and only 18 participants for the post-test of structural empowerment, because it was very hard to find many more participants within the period of this study. Still, there was within-person level data, in total 190 data points for the diary measurement, proactive behaviour and the learning score, but the sample size should be

improved for the next studies. Ohly et al. (2010) also reason that “a large sample and a large number of days per participant are needed” (Ohly et al., 2010, p.87) for generalizability of the results. The number of days, in this case 10, was already good as Ohly et al. (2010) suggest at least five days per participant but they suggest at least 100 participants to generate a good sample.

The study took place for 10 working days, and unfortunately, some participants reported that they were annoyed by the repetition in the questions and that they would suggest keeping the daily questions to a minimum concentrating on the most important ones. This could have been a downside to the validity of the answers of affected participants as it might be that they did not concentrate on the content of the questions and quickly went through the questions. This limitation or the advice for being cautious was also raised by Ohly et al. (2010) as repeated questions for each day can challenge the motivation of participants which may influence the validity and reliability of the data as those who were annoyed might not have answered the questions with full attention.

Another thing that happened to a small number of participants is that they forgot to fill the questions in on the day they were supposed to, also this potential problem of data collection with diary studies was raised by Ohly et al. (2010). After affected participants communicated this to the researchers, it was agreed that they should fill it in for that day from their memory as they assured to remember the relevant aspects. Still, measuring retrospective can always be a threat to the validity of the data (Tofthagen, 2012) and, in this case, the diary was designed and intended to measure for each day and only at one time each day and not for retrospective indications. When looking at the results, these points need to be kept in mind.

In future research, investigating which factors can influence the occurrence of employees' informal learning can still be an interesting topic as its outcomes can be valuable for the economy. In this research, the results could have provided insights for employers which could have been used for their assessment of new employees (in terms of proactive personality) and on how to work with their existing employees (in terms of structural empowerment and proactive behaviour). But the research results turned out to be insignificant, except hypothesis one and the correlation of proactive personality and structural empowerment, regardless of promising past research. Because the data might have been not sufficient due to sample size, this study can be replicated with a larger sample size and with improved, or new measurements.

For the measurements, it might be wise to double-check the questions as seen in Appendix A and decide which of them are important and which may be left out to avoid participants might feel annoyed to avoid that this affects the outcome of their ratings.

An interesting point is that the measurement for perceived structural empowerment, before analysing the results, was seen as a stable perception that would not change quickly, except for the hypothesis for a mere-measurement effect. After the pre-measurement and the diary study, the score changed, and the results became significant. Structural empowerment was measured on a personal level and changed in the second measurement. For future research one should consider including it in the daily measurement to see if this perception is also influenced by daily fluctuations. Thus, one needs to decide in which dimension this factor should be measured.

Another future direction could be looking at different factors related to informal learning or the relationship between structural empowerment and proactive personality as this study yielded a significant moderate correlation between these two factors. In addition, it seems to be possible that proactive behaviour of employees influences the environment of an organization (Parker, & Collins, 2008). It may be that this can also explain the dynamics in structural empowerment and this aspect is missing in this study.

Implications

It was shown that perceived structural empowerment influences informal learning in the workplace of employees. As said, it is not known how and why it happened, but, after participants performed a pre-test on structural empowerment and participated in the diary study for 10 days in which they needed to reflect and report on their daily learning behaviour, the post-test for structural empowerment was significant. Thus, participants seemed to become more aware of what is already there or changed their perceptions or their behaviour. Regardless of these hypotheses and speculations, communicating about structural empowerment seems to have some unknown impact which can be useful. As the relationship to informal learning is significant, organizations should focus on providing, advertising, and improving their structural empowerment to increase their employee's informal learning.

Conclusion

This study showed that structural empowerment can be a factor to increase the daily informal learning of employees. It also seems that proactivity does not play a major role in the relationship of structural empowerment to informal learning, at least there is not much overlap between the two factors as independent variables, not even when both are analysed in the same relationship. Thus, structural empowerment can be used as a general measurement for every employee to increase informal learning. On a practical level, structural empowerment seems to be a factor that every organization can use to increase employees' informal learning at the workplace. The findings of this study should be part of future research to bring clarity into the factors influencing informal learning as investigating how to increase learning at the workplace can only have beneficial outcomes for both, employers but also employees.

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Appendix
Appendix A
Diary Study

Daily Questionnaire (workdays)

| | |
|--------------|---|
| Introduction | Hello, Thank you for taking part in Day X of this Diary Study. The following questions will take only 5 minutes of your time. |
| 1 | Please fill in the last three digits of your phone number. |
| 2 | Today I learned from my work. (Likert-Scale: 1 = not at all, 5 = very much) |
| 3 | Can you recall something that you learned today from work? (Yes/No) |
| 4 | What did you learn from work? Type your answer here: |

| | |
|---|--|
| 5 | <p>What other people were involved in this activity?</p> <p>(Multiple answers possible)</p> <ul style="list-style-type: none"> -A colleague from my workplace/organisation -A colleague outside my workplace/organisation -My superior -A customer, client or user of my product or service -Other -No other people were involved |
| 6 | <p>What was the main reason to learn this?</p> <p>Choose the description that fits best with your learning moment.</p> <p>(Multiple answers possible)</p> <ul style="list-style-type: none"> -I was unsatisfied with an earlier experience -I wanted to practice something -I wanted to prepare myself for future situations -Out of curiosity -Others stimulated me to develop myself in this -It was necessary for my role in the team |

Proactive Behaviours - Daily Measurements addition

| | |
|--------------|--|
| Introduction | <p>Already finished! The last three questions need to be answered by ticking a number from 1 to 5.</p> <p>1 = not at all, 5 = very often</p> |
| 7 | <p>“Today, I actively attacked problems”</p> <p>1 = not at all, 5 = very often</p> |
| 8 | <p>“Today, I did more than I was asked to do”</p> <p>1 = not at all, 5 = very often</p> |
| 9 | <p>“Today, I took initiative immediately even when others didn’t”</p> <p>1 = not at all, 5 = very often</p> |
| End | <p>That was it for today, see you on your next working day!</p> |