

»» Continuing education has dropped in the crisis – need for digital skills is growing

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The coronavirus crisis has pulled the handbrake on in-company continuing education activities, as many companies do not have enough funds, time and planning certainty – and ensuring short-term survival takes precedence. The pandemic has also severely affected continuing education offerings. A recent supplementary survey under the KfW SME Panel has revealed that almost 40% of small and medium-sized enterprises (SMEs) reduced their continuing education activities last year, half of them down to zero. Overall, half of SMEs conducted no continuing education activities in 2020.

But the need for continuing education remains almost constant in the crisis. Indeed, it grew strongly in the area of digital skills in the year 2020. Just under half of SMEs (46%) have a medium or high need for training in this field – more than for core occupational skills or any other topic. In the crisis, basic digital skills that can be learned relatively quickly take centre stage (e.g. standard software).

Lack of skills in the workforce is one of the biggest barriers to the digital structural transformation, making the crisis-induced decline in continuing education all the more problematic. One third of SMEs were unable to meet their digital skills requirements even before the coronavirus crisis struck. Unless continuing education activities are significantly increased during and throughout the crisis, the competitiveness and transformational capacity of SMEs will suffer.

Germany's SMEs have been grappling with the coronavirus crisis for more than a year now. At the start of the year 2021, around two thirds of the 3.8 million small and medium-sized enterprises (SMEs) were directly affected by the crisis and the related restrictions, such as turnover losses, liquidity bottlenecks, staff outages and problems implementing hygiene requirements.¹ But companies responded creatively and made adjustments to their products and services, sales and communications channels, as well as workflow management.

In their crisis response, SMEs gave priority to measures that can support turnover, liquidity and employment in the short term. After all, what is at stake for many SMEs is ensuring their immediate survival. This pressure and the planning uncertainty affecting all enterprises raise concerns that important projects with a longer time horizon are either abandoned or suspended in the crisis. These include, for example, complex innovation and digitalisation projects, as well as in-company continuing education – measures that are key to productivity and competitiveness in the (digital) structural

transformation.² KfW Research recently presented empirical analyses on the crisis-induced slowdown in innovation and the mixed trend in digitalisation activity.³ This is the first paper to examine SMEs'⁴ continuing education activities and the change in their requirements in the crisis year 2020. The analyses are based on a representative supplementary survey conducted as part of the KfW SME Panel at the end of January 2021 (see box).

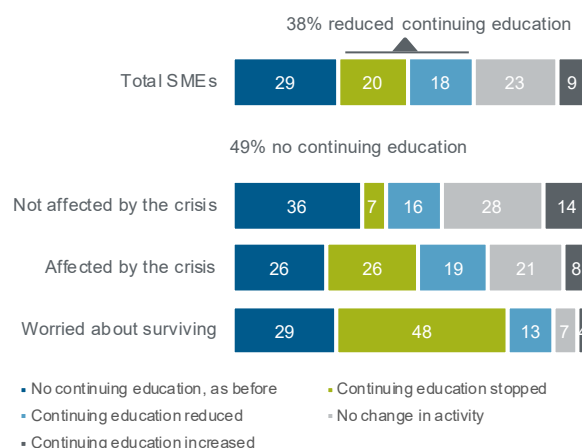
Half of SMEs offered no continuing education in crisis year 2020

The data show a clear picture: In-company continuing education downright collapsed in 2020, with 38% of SMEs reducing their continuing education activities (Figure 1). A slim majority of them (20%) even stopped continuing education altogether – that was one in every five businesses. A further 29% of SMEs carried out 'no continuing education, as before'. Thus, half of SMEs (49%) offered no continuing education in 2020.

One third of SMEs (32%) bucked the negative trend, with 23% engaging in continuing education in 2020 'without any major changes', while 9% even stepped up their activities. The balance between enterprises that expanded their continuing education activities and those that reduced them (38%) is therefore a disturbing -29 percentage points.

Figure 1: One fifth suspended continuing education in the crisis

Variation in continuing education activity in 2020 in per cent



Note: 'Worried about surviving' is included in 'affected by the crisis'.

Source: KfW SME Panel, 4th supplementary coronavirus survey January 2021.

The harder a company is hit, the less likely it is to offer continuing education

The impact of the coronavirus crisis on continuing education becomes even clearer when we take a separate look at the SMEs that have been directly affected by the crisis (68% of all SMEs). They cut continuing education activities more than average in 2020, with a share of 45%, of which 19% was reduced to a lower level and 26% down to zero. A portion of the enterprises affected by the coronavirus (25% of SMEs) perceived the crisis as a threat to their survival. Nearly half of them (48%) suspended continuing education last year. Only one in ten enterprises (at least) maintained their continuing education activities.

Businesses not directly affected by the coronavirus crisis (32% of all SMEs) stand out from the crisis-stricken majority primarily by the fact that they cancelled all continuing education only in exceptional cases (7%). But it should be noted that even SMEs that have weathered the crisis relatively well have a negative continuing education balance for the year 2020. Significantly fewer of them expanded continuing education activities (14%) than those that reduced them (23%; a balance of -9 percentage points).

Drop in continuing education is not a surprise ...

The crisis-induced drop in in-company continuing education empirically demonstrated here is also clear from a theoretical perspective. After all, short-term business stabilisation measures take precedence in a crisis, as explained above, and turnover losses mean that many enterprises lack the necessary financial resources to pay for continuing education. Insufficient planning capacity and uncertain prospects exacerbate the situation.

Continuing education is fraught with particularly high planning uncertainty. After all, rather than investing in company assets it means investing in volatile human capital which workers take with them if they resign. Even if short-time allowance as a key labour market policy instrument makes an important contribution to stabilising employment, the coronavirus crisis makes long-term human resources planning considerably more difficult. This includes not just crisis-induced dismissals but also the possibility of greater staff turnover after the crisis. All of this considerably reduces enterprises' demand for continuing education.

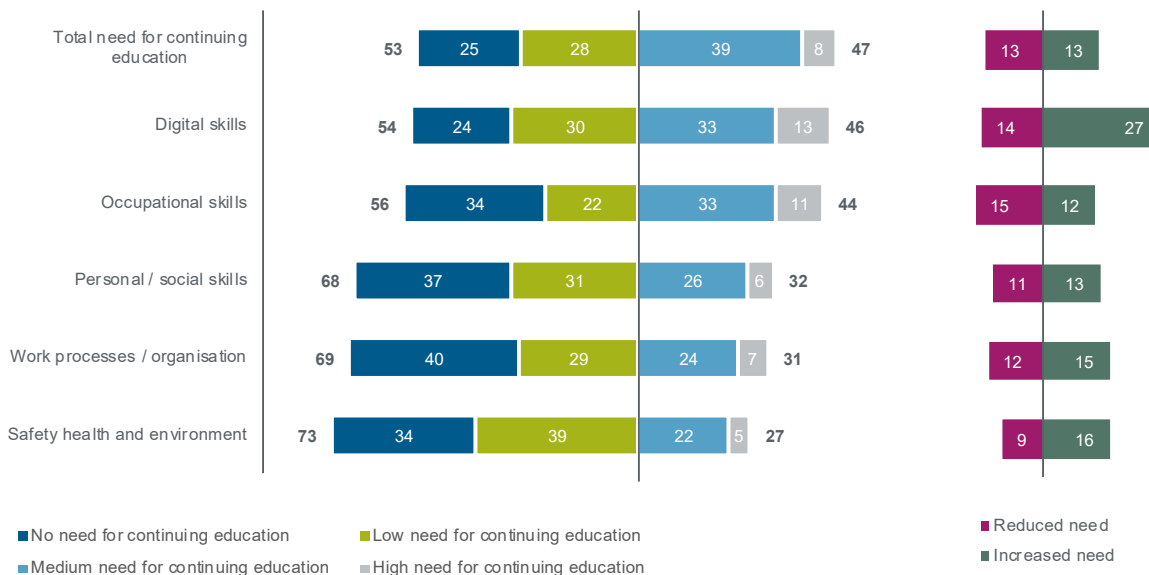
... but it is a problem

The pandemic-induced crisis created not just a demand shock but a supply shock in continuing education. In normal times, most continuing education takes place in the form of face-to-face events, which is not easily compatible with infection control. Digital training offerings cannot be readily expanded at will. And apart from the great advantage of spatial and temporal flexibility they present, they also have drawbacks that can hamper participation. Digital formats require a certain degree of technical equipment, media skills and self-motivation. Besides, on-screen training is of limited suitability for learning manual skills.

Ultimately, the crisis has greatly reduced both the economic incentives and the practical possibilities of continuing education. Even if the (temporary) suspension of continuing education may be a rational step for an individual enterprise, it is problematic for the economy as a whole. Ever since the crisis struck, investment in the human capital of the workforce has been falling to an economically inefficient level which jeopardises

Figure 2: Digital skills are the area in greatest need for training and with strongest growth

Need for continuing education by topic at the start of the year 2021 (left) and variation in 2020 (right). In per cent of SMEs.



Source: KfW SME Panel, 4th supplementary coronavirus survey January 2021.

disrupts productivity growth, competitiveness and transformational capacity the longer the crisis continues.

Need for continuing education is generally steady

As demonstrated, actual continuing education activity heavily depends on the health and economic crisis that has been ongoing for more than a year now. But how do enterprises assess their current need for continuing education? Is the crisis influencing this too?

At the beginning of the year 2021, 8% of SMEs had a great need for continuing education, while a significantly higher proportion of 39% had a medium need for continuing education. A low need was reported by 28%, while 24% have no need whatsoever (Figure 2 left). In general, a medium and, in particular, high need for continuing education is likely to come with a noticeable business incentive to carry out continuing education. Under this assumption, SMEs can be roughly split into two camps: Just under half of them (47%) have a 'significant' need for continuing education.

This situation is not new. While SMEs significantly reduced their continuing education activities in the crisis year 2020, the need for continuing education has remained roughly steady. Three quarters of enterprises (74%) estimated their needs to be just as high in January 2021 as twelve months before – that is, shortly before the coronavirus crisis. The remaining one quarter is composed equally of enterprises with higher and lower continuing education needs (each 13%, see Figure 2 right). In businesses affected by the crisis, a reduced need for continuing education is slightly more common than an increased need (17 vs. 13%), while the reverse applies to businesses not affected (6 vs. 12%). It must be noted, however, that an unchanged need for continuing education is most common by far in both groups (70 and 82%).⁵

Digital skills represent the greatest need

The need for continuing education varies by thematic areas. Their relative significance clearly demonstrates that in 2021, SMEs are right in the throes of the digital structural transformation. After all, digital skills are the area in which SMEs have the greatest need for continuing education, from the use of computers and standard software through specialised software and digital production machines right through to programming skills. Nearly half the enterprises (46%) have a medium need (33%) or a high need (13%) for further digital skills training.

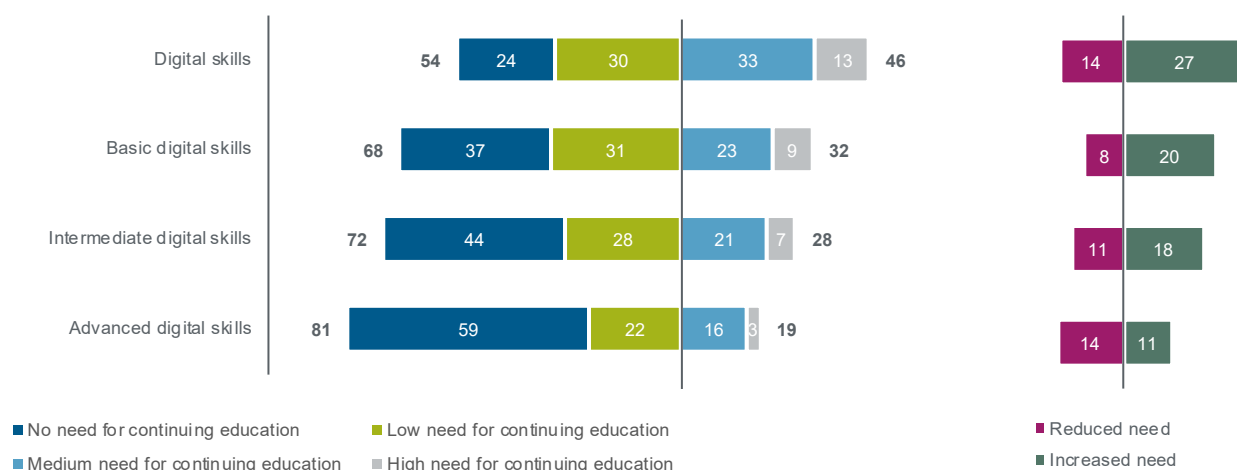
Digital skills are thus roughly on the same level as the traditional core of continuing education: updating occupational skills that were originally acquired in an apprenticeship or a degree course. A share of 44% of SMEs have a combined medium high (33%) or high (11%) need for continuing education in these core competencies. They have a lower need for corresponding continuing education in personal / social skills (32%), in organisational issues (31%) and in the areas of safety, health and environment (27%).

Digital skills are becoming more important

As was the case for continuing education overall, the need for continuing education in most specialised fields did not change significantly in 2020 either. With respect to core occupational skills, for example, enterprises with an increased and decreased need for continuing education were roughly on a par (12 vs. 15%) The difference is just 2–3 percentage points in organisational topics and personal and social skills as well. For safety and health topics, by contrast, a significant increase is identifiable (16 vs. 9%), presumably in connection with coronavirus hygiene regulations.

Figure 3: The crisis shifted the focus on basic digital skills that can be learned quickly

Need for further digital skills training at the beginning of the year 2021 (left) and variation in 2020 (right). In per cent of SMEs.



Source: KfW SME Panel, 4th supplementary coronavirus survey January 2021.

There is a conspicuous rise in the need for further digital skills training. The need for continuing education increased in 27% of all SMEs but dropped in 14% in 2020. In the midst of the digital structural transformation, a steady rise in the need for digital skills can generally be assumed. But this clear increase within a year is probably mostly due to the impact of the coronavirus crisis.

The current KfW SME Digitalisation Report demonstrates that the crisis indeed triggered a digitalisation push, as 33% of SMEs expanded their digitalisation activities while only 5% reduced or suspended them.⁶ This is probably due first and foremost to the expansion of remote working arrangements, videoconferencing, online sales etc. in response to the crisis. These measures are relatively easy to implement and immediately effective. By contrast, more in-depth, strategic long-term digitalisation projects have probably been deferred in the crisis for lack of funding, time and planning certainty.

Crisis increased the need for basic digital skills in the short term

The detailed analysis of the need for continuing education underscored the concern that the coronavirus crisis would have a mixed impact – triggering a surge in simpler, more short-term digitalisation activities while putting the brakes on more complex, long-term projects. After all, the need for continuing education in basic digital skills that can be learned relatively fast grew most strongly in 2020. These include the use of computers / tablets and standard software, internet research and the use of social media.

The need for continuing education in basic digital skills increased in 20% of SMEs but dropped in 8% (Figure 3, right). Intermediate digital skills, such as the use of specialised software or digital production machines, are an area where the increase in the need for continuing education was less pronounced (18 vs. 11%). Advanced digital skills such as programming languages and data science even saw a slight drop in the need for continuing education on balance (11 vs. 14%). Thus, the crisis revealed not just a generally increased need for further digital skills training but a distinct divide. The short-term acquisition of basic skills moved to centre stage while more complex digital skills faded into the background.

Conclusion: continuing education has fallen but the need for digital skills is growing

The coronavirus crisis really put the brakes on in-company continuing education in 2020. Demand has literally plummeted because many companies lack funds, time and planning certainty. Furthermore, the pandemic has sharply reduced continuing education offerings. The current supplementary survey under the KfW SME Panel revealed that nearly 40% of SMEs reduced their continuing education activities last year, half of them down to zero. The harder a company was hit by the coronavirus, the sharper the decline. Nearly one in two SMEs (48%) that were worried about surviving the crisis cancelled all continuing education last year because securing their short-term survival took precedence.

Overall, half of all SMEs conducted no continuing education activities in 2020.

However, companies continue to have an almost unchanged need for continuing education in the crisis. In the area of digital skills, it actually grew strongly in 2020. Nearly half of SMEs (46%) have a medium or high need for continuing education in this area – more than in any other. In the crisis, basic digital skills that can be learned relatively quickly moved to the fore (e.g. use of devices and standard software).

Companies need to catch up on continuing education

SMEs are in the throes of the digital structural transformation, which makes the crisis-induced decline in continuing education all the more problematic. After all, lack of skills in the workforce is one of the greatest barriers to digitalisation,⁷ with one third of SMEs already unable to meet their digital skills needs even before the crisis struck.⁸ This bottleneck cannot be eliminated without a substantial increase in continuing education activities both after the crisis and, ideally, during the crisis as well.

Even in the crisis, enterprises remain the broadest pillar of continuing education. They need more help than before, including in the form of financial support. Besides promotional loans and direct cost reimbursement, this could include tax benefits for continuing education expenditure that treats investment in human capital the same way as investment in assets and permits write-downs. Such a promotional initiative would have to be launched promptly, even if it might not show its full effect until after the coronavirus crisis has been overcome.

Building on individual continuing education in the crisis

Removing the non-financial barriers to continuing education is harder for enterprises. In times of crisis, the increased risk that the investment might not pay off reduces their investment appetite – whether as a result of crisis-induced dismissals or because the changing market environment suddenly requires skills that are different from those acquired. They are then less likely to provide comprehensive continuing education that is particularly important in the structural transformation. It is therefore worthwhile to place a particular focus on individual continuing education in the crisis. Workers have stronger incentives to plan their training beyond the needs of their current employer as well – and potentially to even seize the opportunity to retrain and embark on a new career path.

Comprehensive support in the form of financial help with as few strings attached as possible is just as important here as good advice on continuing education needs and opportunities. What is also crucial, of course, is whether enterprises have enough time and planning certainty. Digital learning formats with their temporal and spatial flexibility offer a great opportunity but are completely new to many people. Hopefully, the coronavirus digitalisation push has sufficiently removed technical barriers and people's remaining reservations.

Supplementary coronavirus surveys by KfW Research

The various analyses undertaken to identify the impact of the coronavirus crisis on SMEs are based on regular supplementary surveys conducted as part of the KfW SME Panel. The KfW SME Panel (KfW-Mittelstandspanel) has been conducted since 2003 as a tracking survey of small and medium-sized enterprises in Germany. It is the only representative survey of the German SME sector, making it the most important source of data on issues relevant to the SME sector and for informing policymakers. For the supplementary coronavirus surveys, all enterprises that had already participated in an earlier wave of the KfW SME Panel and had provided a valid email address were surveyed online several times by GfK SE on behalf of KfW on the current impact of the coronavirus crisis in the years 2020/2021. The supplementary survey underlying the analyses of this paper was conducted from 12 to 22 January 2021. Responses from a total of 2,800 enterprises were evaluated. As the survey was linked to the main database of the KfW SME Panel, the data collected enable a representative evaluation for the SME sector.

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¹ Gerstenberger, J. and Schwartz, M. (2021), Zwar belastet die Corona-Krise den Mittelstand auch zu Jahresbeginn, allerdings bleibt die Lage trotz des Lockdowns stabil (The coronavirus crisis is weighing on SMEs at the start of the year too, but the situation is steady despite the lockdown – in German only), Focus on Economics No. 315, KfW Research.

² Even after the crisis has been overcome, SMEs may be forced to choose between meeting their need for building liquidity reserves to ensure future resilience and investing in a sustainable business model, cf. Köhler-Geib, F. (2020), Where to from here? The crucial next steps in the coronavirus crisis, position paper, KfW Research.

³ Zimmermann, V. (2021), Coronavirus crisis is hampering innovation, digitalisation sees mixed trend, Focus on Economics No. 312, KfW Research
Zimmermann, V. (2021), KfW SME Digitalisation Report 2020: Digitalisation activity fell before Corona, ambivalent development during the crisis, KfW Research. The coronavirus crisis triggered a specific digitalisation surge through the sharp increase in remote working, videoconferencing, online sales etc. But it must be assumed that the longer the crisis drags on, the more often sweeping digitalisation projects will be abandoned/suspended.

⁴ In the survey, 'continuing education activity' referred to carrying out and funding in-company continuing education measures, covering the costs and giving workers time away from work to participate in individual continuing education measures.

⁵ It must be assumed that enterprises affected by the crisis also have a basic need for continuing education in the crisis or that new needs are emerging in the context of the structural transition. But it must also be assumed that these needs are currently less likely to be translated into specific demand for particular measures.

⁶ Zimmermann, V. (2021), KfW SME Digitalisation Report 2020: Digitalisation activity fell before Corona, ambivalent development during the crisis, KfW Research.

⁷ Zimmermann, V. (2019), Business Survey 2019, More and more businesses have firm plans for digitalisation, hurdles also more widely acknowledged, KfW Research; Zimmermann, V. (2017): Business Survey 2017, Digital transformation of industries: broad basis, multiple barriers, KfW Research.

⁸ Leifels, A. (2020), Digital skills shortage is hampering German SMEs' digital transformation – is upskilling the answer? Focus on Economics No. 277, KfW Research.