

# Individual stories of agency: an exploratory study into the pandemic impact on students' employability skills

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Individual  
stories of  
agency

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## Abstract

**Purpose** – This paper aims to investigate the impact of the COVID-19 pandemic on university students' employability skills and give insights into preparation for future crises that may happen.

**Design/methodology/approach** – Employing an interpretative phenomenological approach with the frame of social cognitive theory, the current study examined the changes in environmental, behavioral and personal elements of human functioning for employability skills being affected by the conditions during the pandemic.

**Findings** – Findings based on ten in-depth semi-structured interviews with students at universities in Vietnam highlighted that the global pandemic performed as both challenge and an opportunity for employability skills development, yet the extent to which the students can benefit from the new studying conditions attributed to each individual's initiatives in taking advantages of resources and acting against difficulties.

**Originality/value** – Whether the pandemic became a hindrance or a motivation for students' employability skills to develop and whether students effectively utilized an agency to overcome challenges and improved their skills after the pandemic have not yet been investigated. This study added to the body of literature regarding self-regulated learners by demonstrating agency in the learning process as well as how to manage careers and improve employability skills by making use of resources in disconnected settings.

**Keywords** Employability, Self-directed learning, Transferable skills, Virtual learning environment, Work readiness, Skills development and mismatch

**Paper type** Research paper

## Introduction

COVID-19 has drastically altered the way we work and engage with one another, including students' experiences in developing employability skills whilst being at universities. Especially when the labor market environment has never been more dynamic with globalization, automation and recent advances in artificial intelligence (Mezhoudi *et al.*, 2023), improving college students' employability is the first step in resolving the employment crisis. Due to the fast-changing world of work, what higher education offers its students still differs from what the labor market anticipates of graduates in entry-level professions (Damoah *et al.*, 2021). Despite an effort to utilize different self-regulated learning strategies to prepare for uncertainties in employment (Lan Nguyen and Zarra-Nezhad, 2023), graduates are lacking in transferable abilities, which allow them to learn the essential skill sets, meet the demands of the modern industry and transfer abstract cognitive skills (Mai, 2018). The majority of adverse observations of student academic conduct were linked to COVID-19's disruption of teaching and learning, suggesting that remote learning may have impeded certain student



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learning and professional skill development during the previous academic years (Aristeidou and Cross, 2021). Thus, the development of college graduates' employability during this epidemic is thus seriously challenged (Shiyuan *et al.*, 2022).

When those students move from education to the workforce in the new normalcy after COVID-19, higher education institutions may have to resolve huge skills gaps in students due to unfavorable learning experiences. Graduate employability has never been more of a priority due to the existing labor market restrictions, which have been exacerbated by COVID-19 (Tran *et al.*, 2022). College students' employability and human capital are adversely affected by the assumption that work chances have declined as a result of the COVID-19 outbreak (Shiyuan *et al.*, 2022). Furthermore, the disparity between the affluent and poor in developing countries, including Vietnam, at the time may have contributed to skills discrepancies in the post-pandemic era, as the wealthy could purchase anything for their children while the underprivileged lacked access to computers, smartphones and the Internet (Van and Thi, 2021). While a large body of scholarship explored the challenges of learning during the COVID-19 pandemic in a variety of settings (e.g. Barakat and Meler, 2022; Faisal, 2023; Van and Thi, 2021), or how psychological factors, such as career anxiety, impacted employability (e.g. Qazi *et al.*, 2023), studies examined whether any adverse effects of the environmental shifts amidst the global epidemic impeded with students employable skills remained missing. To bridge the gaps in the literature, this study contributed to the current scholarship by examining whether the global pandemic facilitated or impeded students' employability skills and students' agency in handling any challenges to improve their skills and prepare for post-university transitions.

Underpinning the study is the Social Cognitive Theory (SCT) (Bandura, 1999), which enables the author to examine the reciprocal relationships between the environmental, behavioral and personal influences of learning during the COVID-19 pandemic on employability skills to comprehend how students enacted agency in adapting to those shifts. Environmental, behavioral and personal factors are referred to as "co-determinants of human experience" (Usher and Schunk, 2017, p. 2). Transitions between different professional paths may not happen automatically, but rather on purpose, requiring each individual to acquire self-efficacy and related psychological capital (Bandura, 1999), involving the use of employability agency throughout their careers (Pham and Jackson, 2020). Thus, agency or self-management of a career becomes a key factor for a person in navigating through hardship to construct a career, especially at an early stage of establishing a career (Qenani *et al.*, 2014), such as while being an undergraduate. The study investigated the context of Vietnamese universities where the disparity in geographical features, economic status and traditions might cause differences in barriers and opportunities to acquire knowledge and develop skills in virtual learning (Van and Thi, 2021). There are two research questions that this study needs to address:

*RQ1.* How did the COVID-19 pandemic affect students' employability skills?

*RQ2.* To what extent did students use their agency to improve the (possible) skills gaps caused by the COVID-19 pandemic?

The findings of this study can help university students prepare for college-to-work transitions, especially when facing urgently emerging crises or being put in unpreferable conditions in the future. The study can also assist university instructors or career counselors in offering appropriate training sessions to sufficiently equip students with the necessary employability skills to cope with uncertainties due to crises.

## **Literature review and theoretical framework**

### *Employability skills of university students*

Employability skills are defined as students learning applicable abilities, understanding and personal characteristics that contribute to effectively securing present and future work

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prospects that benefit not just students themselves but also the labor force, their community and the economy (Yorke, 2006). The fourth industrial revolution came, leading to dramatic changes in the kinds of jobs and recruitment sectors. In addition to hard skills such as professional knowledge, equipment, or procedures, the labor market also demands soft skills like interpersonal abilities that improve an individual's interactions, work performance and career prospects (Nickson *et al.*, 2012; Rao, 2014; Remedios, 2012; Succi and Canovi, 2020). Employability attributes that are considered to be in great demand include organizational skills, basic digital competency, problem-solving competencies, teamwork, subject-related competencies, goal-oriented traits, communication skills, decision-making abilities and creativity (Bhatti *et al.*, 2023).

In the Vietnamese context, graduate abilities even fall short of expectations which might result in graduate skills gaps (Tran *et al.*, 2022). Skills gaps refer to the disparity between the skill level required to complete a task at work and the quality level attained by a current or upcoming employee (Jackson, 2010). Employability skills can be established through group projects and instructional strategies (Trung and Swierczek, 2009); however, the COVID-19 pandemic came and disrupted those previous teaching and learning approaches in higher education (Ali, 2020; Mishra *et al.*, 2020). While most studies in higher education focused on what difficulties the pandemic caused for the teaching and learning process, such as issues with their participation in online courses owing to poor Internet access quality (e.g. Dinh and Nguyen, 2020) or a reduction in students' concentration (e.g. Thai *et al.*, 2022), hardly any studies about the influences of the pandemic on college students' employability skills could be found.

#### *Challenges and opportunities of learning during the COVID-19 pandemic*

Learning experiences that increase methodological and practical abilities, together with more integrated career-related experience and employability skills, can be promoted to better prepare graduates for the transition to the workforce (García-Aracil *et al.*, 2021). According to McQuaid and Lindsay (2005), internal personal characteristics and environmental external elements are the key factors impacting employability, and the enhancement of employability is the outcome of a combination of factors. The COVID-19 pandemic occurred with considerable changes affecting university students' learning process and their transition-to-work preparation which might influence the enhancement of employability skills. Different teaching techniques, a shortage of electronic gadgets, a rise in the number of homework assignments (Rzanova *et al.*, 2022) or lack of conducive learning environments, difficulties coordinating family obligations with academic obligations and difficulties with communication (Barakat and Meler, 2022) were reported as challenges from teenagers, parents, or instructors' perspectives during the pandemic. Especially, the pandemic brought disadvantages to developing countries (including Vietnam) since some students were unable to fully participate in online learning due to a lack of access to Internet data, unstable electricity, technical equipment, Internet connectivity concerns and geographic location (Agu *et al.*, 2021; Yeboah, 2022; Zarei and Mohammadi, 2022). Digital inequality was highlighted during the COVID-19 epidemic in some developing countries such as Ghana (Kumi-Yeboah *et al.*, 2023) or Guyana (Oyedotun, 2020) as a huge challenge, due to the lack of facilities and Internet access in the hinterland areas. Besides, undergraduates have a great deal of uncertainty regarding their employability and career preparation throughout the pandemic (Capone *et al.*, 2021). Despite its adverse impact on students' learning and skills establishment trajectories, the COVID-19 pandemic was also regarded as an opportunity for improvement and self-progress. A high level of learner autonomy was found among undergraduate students due to emergency remote learning (Gelles *et al.*, 2020; Ghazali, 2020). Also, the pandemic has provided a once-in-a-lifetime opportunity for educational changes that had

been planned before COVID-19 but were never fully realized (Zhao and Watterston, 2021), which can be about the motivations to develop students' generic skills. As a result of the existence of digital inequality in developing nations during this time of crisis, there is a need to conduct a study that identifies problems and opportunities posed by the pandemic to students' skills, which can be diverse among students coming from metropolitan and countryside regions. During the pandemic, students tended to come back to their hometown for virtual learning and might experience gaps in digital access and facilities.

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*Students' agency in managing their career path and bridging skills gaps*

To increase the chances of employability among students, agency is an important factor in using different sources to develop other employability capitals (Pham and Jackson, 2020). People may utilize their professional skills to develop their cultural capital (such as their understanding of the local labor system) and technical proficiency, such as adaptability and flexibility, to activate their "agentic capital" (e.g. learning to accomplish tasks beyond trained specializations) (Pham, 2021). Proactive career behaviors, such as exploration of the surroundings, socializing and advice-seeking are considered important in increasing employability, especially for university-to-work transitions or early careers (Okay-Somerville and Scholarios, 2017; Qenani *et al.*, 2014). Thus, employability is viewed as a personal skill or responsibility, with higher education institutions serving as crucial development tools for employability primarily on the shoulders of the students themselves (Sin *et al.*, 2016). Although graduate skills gaps may occur and come from a variety of reasons, including both supply (higher education institutions, students and graduates) and demand (employers), as well as economic and societal factors (Nghia, 2018), student agencies became indispensable in improving their own competencies to close the skills gaps and be qualified for the employment market when they are about to graduate (Pham and Jackson, 2020). The agency, therefore, plays a significant role in establishing a profession and converting COVID epidemic disadvantages into benefits for employability skills advancement.

*Theoretical framework: social cognitive theory*

The study utilized SCT (Bandura, 1986) as a frame to investigate how the COVID-19 pandemic affected the employability skills among college students as well as the agency those individuals devised to close the possible gaps. According to Bandura's (1986) SCT, a person's functioning is influenced by how they interact with their surroundings, their behaviors, their thoughts and other aspects of themselves. The theory's underlying premise suggests that learning is an agentic process that should be understood in the context of a social environment (Bandura, 1999; Schunk and DiBenedetto, 2020; Schunk and Usher, 2012). Self-regulatory mechanisms are given a significant role in SCT. Self-regulation is the process through which people begin and sustain activities, thoughts and feelings that are consciously directed toward accomplishing goals (Zimmerman, 2002). Before starting a work, people decide the techniques to employ and set goals. As they run activities, they analyze their progress toward their goals and determine whether to keep going or change their approach. The SCT stresses the significance of human agency, in which people try to exercise significant control over their thoughts, feelings and behavior (Schunk and Usher, 2012). People who value gaining a sense of agency think that they have substantial influence over essential aspects of their lives and are driven to do so (Schunk and DiBenedetto, 2020). Regarding environmental factors, the disrupted learning experience during the COVID-19 pandemic might cause possible changes in the way students interact with one another as well as with the instructors. According to UNESCO and UNICEF (2021), learning issues being identified during this time were inadequate engagement with instructors and classmates and being side-tracked and occasionally bullied. Furthermore, McQuaid and Lindsay (2005)

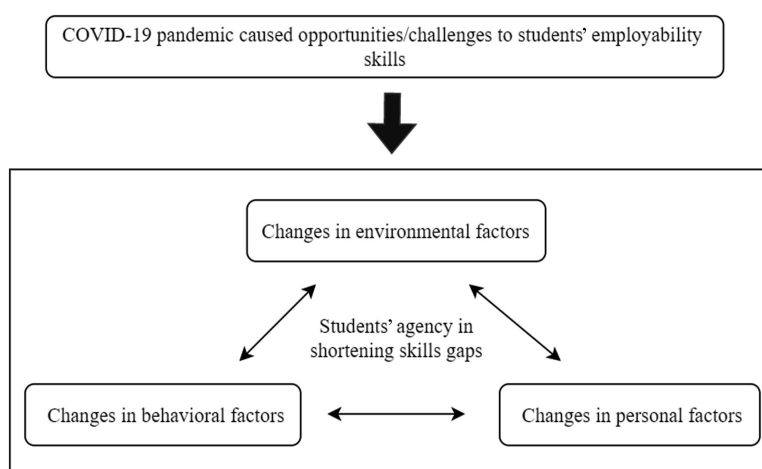
assumes that interactions between individuals and the environment around them, such as seeking out and securing work opportunities, will ultimately affect employability. Grounded on both theory and empirical studies, it is argued that the pandemic caused changes to employability skills in aspects of environments (e.g. school instructions); behaviors (e.g. strategy use, help-seeking); and emotions (e.g. cognitions, motivations), from SCT perspectives (Bandura, 1986; Usher and Schunk, 2017); thereby, students may generate agency to handle the situation of disruptions and changes caused to their employability skills. Using the SCT, the study will illuminate how students actively adapted to improving the possible skills gaps caused by the changing condition of the social learning environment due to the COVID-19 pandemic.

Looking through the lens of this theory, it can be illustrated to what extent the distance learning conditions caused changes in the motivations, cognitions, help-seeking actions and skills development process of students. SCT was utilized in previous studies to emphasize the self-regulation of students in higher education. Using SCT, Wang and Lin (2007) indicated that more motivated students employed more efficient strategies and responded more effectively to environmental demands in the Web-based learning environment. Another study employed SCT pointed out that students blamed their own declining motivation and the difficulties they were having with self-control for the decreases in their learning, and they suggested enhancing psychology teaching to boost students' motivation and self-regulation under difficult situations (Usher *et al.*, 2021). Based on the study findings through the lens of SCT, this study provides a nuanced understanding of how each of the factors affects or interacts with one another to help students employ their agency to conduct an "intentional act" in response to a certain situation (Eteläpelto *et al.*, 2013, p. 49). Figure 1 illuminated the theoretical framework of the current study.

## Methods

### Data collection

The study was drawn from a research project about student strategies to develop potential competencies for the education-to-work transition of students in Vietnam. Based on the interpretative phenomenological analysis, a subfield of phenomenological inquiry that seeks



Source(s): Figure by the author; adapted from Bandura (1986)

**Figure 1.**  
The framework built  
on social cognitive  
theory

to comprehend how people’s shared life experiences relate to a given sociocultural setting (Larkin *et al.*, 2021), this qualitative study intended to examine the experiences of a homogenous sample in detecting and developing post-pandemic employability skills. In-depth semi-structured interviews were conducted for data collection. To develop an insight into students from various academic disciplines, the researcher opted for students from a large metropolitan university in Vietnam which had a wide range of programs and an admission number of thousands of students each year. The study was carried out in compliance with the ethical standards of the Committee on Research Ethics of the researcher’s university, and this Committee granted ethical permission before the commencement of data collecting. A purposive sampling method was used to approach participants. The reasons for using this method are to ensure the variety of participants’ backgrounds, in terms of working experience, socioeconomic status and academic majors. The participants were recruited through individual email with approval from the Student Management Office in their university. Participants in the study are from a national metropolitan university that included a variety of students from different socioeconomic backgrounds as well as geographical regions. Participants were chosen based on their accessibility, availability and willingness to discuss their experiences and share their opinions. There were ten university students interviewed via Zoom. There was a wide range of participants’ social backgrounds, whose residential places covered both urban and rural areas. This criterion of participants was determined by the fact whether their birthplaces and official residing locations were in cities (urban areas), or provinces, particularly mountainous regions, (rural areas). Before deciding to join the study, the participants were provided with information and clearly understood the rights to withdraw at any time as well as to remain anonymous throughout the research. In this paper, students’ information was written as a student code, an academic discipline and a social background respectively, for instance, S1, Translation, Rural (Table 1).

Data analysis

Interview recordings were transcribed verbatim and translated from Vietnamese to English. The author sent the transcriptions to interviewees via email to confirm whether the data was correct and to ask for the information interviewees would not like to be included. After the confirmation with informants, the author started coding by writing the main ideas and important points on the margin of transcriptions. Pilot coding in MAXQDA 20.2.1 software was initially conducted with two interview transcripts to produce a general map of themes. The data analysis procedure followed a thematic content analysis in which any descriptions that were related to the subject of the inquiry were highlighted and the author examined the

Table 1.  
Demographic  
information of  
participants

Participant code	Gender	Area of studying	Social background
S1	Female	Translation	Rural
S2	Male	Engineering	Urban
S3	Female	Teacher Education	Urban
S4	Female	Business Administration	Rural
S5	Male	Psychology	Urban
S6	Female	Linguistics	Urban
S7	Male	Computer Science	Rural
S8	Female	Linguistics	Urban
S9	Male	Economics	Rural
S10	Female	Psychology	Rural

Source(s): Table by the author



complete interview transcript several times to find out different units, grouping and regrouping related and dissimilar pieces of information (Anderson, 2007). The inductive coding approach was applied by the author, including coding data, grouping data into possible themes, reviewing the lists of codes and turning to data to see if any new themes emerged (Braun and Clarke, 2006). The codes were continually compared with concepts in the SCT to relate to the functioning of different factors in the learning experiences of participants. The author referred to the research questions during the coding process and created themes that could promptly answer the questions (see Table A1 for examples of codes and themes). The author recognized that the theme data became saturated when no additional information from participants in each theme was offered.

## Findings

The results suggested that changes in university students can be divided into three themes, which are equivalent to the main elements of SCT.

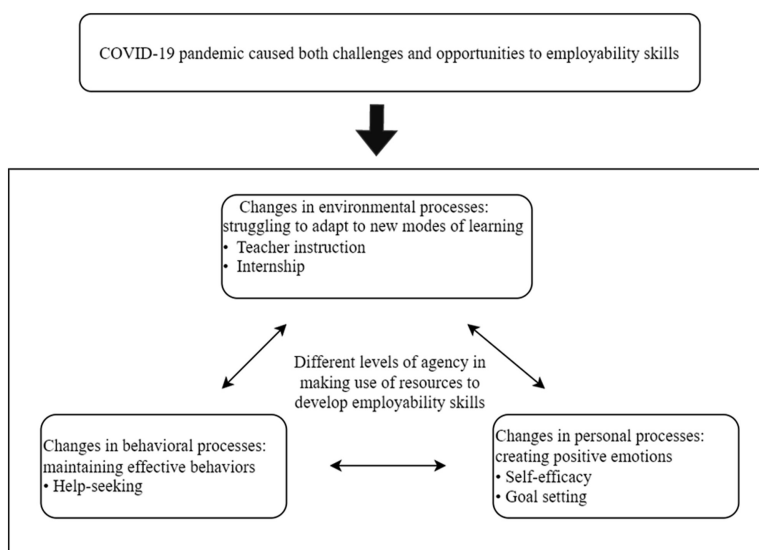
Study findings can be summarized in the model below (Figure 2).

### *Changes in environmental factors*

Environmental factors involved social models of surroundings such as instructions or feedback (Schunk and DiBenedetto, 2020). Disadvantageous conditions were reported by the interviewees, including unsatisfactory learning modes, cancellation of internship, or a reduction in chances of connection.

Changes in the interacting modes of learning had an impact on students' willingness to enhance employability skills.

The learning modes were turned into virtual interactions, from lectures to assessments. Most of the time we were studying individually and interacting via online platforms like Zoom (S7, Computer Science, Rural)



Source(s): Figure by the author; Bandura (1986)

**Figure 2.**  
Study findings  
following reciprocal  
interactions of three  
factors in SCT

Online learning makes me less motivated; I didn't have much interaction with teachers and couldn't find the purpose to study or develop my skills. (S9, Economics, Rural)

Furthermore, although work-integrated learning courses are credited with being of critical importance in providing recent graduates with the employability skills they need to succeed in the workplace (Jackson, 2015), these programs were affected by the pandemic, as confirmed by the participants.

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The pandemic made our internship courses become underqualified, or even canceled. We could not go outside and have hands-on experience at companies. (S10, Psychology, Rural)

There is a lack of instructions for internship courses. We weren't told what we were supposed to do. We were lost in how to behave with people older and in higher positions than us [at work]. (S5, Psychology, Urban)

A student acknowledged a disadvantage of coming from a rural area in adapting to the university social environment, this may result in her networking and communication skills.

Being a student from a province to a city to study, I am unconfident and feel inferior to befriend others, the restrictions during the pandemic made it even harder for me to connect. (S4, Business Administration, Rural)

If a student develops and succeeds or falters and withdraws, the learning environment may have a significant impact on that. Using available physical, social and technical resources, students can also create their own learning environments (Usher and Schunk, 2017). Thus, besides from pre-arranged learning environment, which was affected by the pandemic, students must create or adjust different factors in a learning environment by using self-autonomy.

Whether you can take initiative [to develop employability skills] or not, is an individual story, there are my classmates who do not do anything by themselves. Universities all create conditions for students to be autonomous, but to what extent you can be autonomous will be the responsibility of each student, not of universities at all. (S3, Teacher Education, Urban)

The informant supposed that although the environment did affect the conditions of skills acquisition to some extent, the key factors lay in students' personal processes and behavioral practices.

#### *Adaptation in personal factors*

Personal factors referred to the cognitions, beliefs, perceptions and emotions of an individual (Schunk and Usher, 2012). Personal influences include processes that "help instigate and sustain motivational outcomes" (Schunk and DiBenedetto, 2020, p. 8).

Research data showed that university students experienced negative thoughts and fears about their skills and employability future.

During the pandemic, I reached out to many employers for part-time jobs, but no responses, I felt lost and doubtful about my future. (S7, Engineering, Rural)

The interviewee in this case realized the importance of doing the internship and managing their career by himself. Besides, setting goals to drive the motivations for developing skills is a strategy applied by an informant. Specific performance criteria are more likely than general goals to encourage self-evaluations of progress and boost motivation (Bandura, 1986).

I set up long-term goals for my career instead of short-term ones like getting a high grade, for example, I want to pursue a research career in Psychology, so I choose to focus more on research and writing skills rather than other skills. (S10, Psychology, Rural)



Informants also considered the pandemic as a chance to practice and develop skills in their path or took advantage of typical features of an introvert to develop professional skills.

People might not like the fact that they can't go out and communicate with others, but as an introvert, I love the feeling of learning on my own and especially I could promote self-development by learning more data skills during that [COVID] time. (S2, Engineering, Urban)

Practicing is an adaptational strategy for an interview regardless of what the environment brought to people. In SCT, self-efficacy is an essential internal motivating process as it results from evaluative and goal-focused self-reflection (Schunk and DiBenedetto, 2020). In participants' cases, self-reflecting on past experiences can be a foundation to develop self-confidence.

During the pandemic, I had more time to evaluate my progress and skills. For example, I could reflect on my teachers' feedback on my presentation skills. (S10, Psychology, Urban)

I often practice self-presentation on a topic until I produce a deep and fluent talk, and I can be more confident with my knowledge and skills. (S5, Psychology, Urban)

A participant suggested how to be emotionally stable for the skills development process regardless of a pandemic or normal situations, which is to be aware of our needs.

I see many of us are still confused about what we need, and what we want, so there is no direction to develop knowledge and skills for the future. (S4, Business Administration, Rural)

### *Adaptation in the behavioral process*

Key behavioral factors are "choice of activities, effort, persistence, achievement, and environmental regulation" (Schunk and DiBenedetto, 2020, p. 15). Research data indicated that student participants made use of help-seeking strategies while encountering difficulties or uncertainty in acquiring any skills, especially in the conditions of limited interactions, they tended to appreciate the chance of connections more than ever before.

As a young employee, I sometimes make mistakes when talking to consumers at work. For comments on my performance in this situation, I turn to my line manager (S8, Linguistics, Urban)

I focused more on networking with alumni, as this is a great opportunity to connect and learn from their lessons and gain communication skills. (S7, Computer Science, Rural)

Learning from others, such as instructors, is among the strategies for students to acquire what was not delivered at university during this rough time.

I did my thesis via a virtual learning environment. During the process of working and talking one-on-one with my instructor, I find that my critical thinking skills are greatly improved (S6, Linguistics, Urban).

One fundamental principle behind SCT is that people are driven to create a feeling of agency to have a greater degree of influence over critical events in their life (Schunk, 2012). Informants exerted an agency to develop good behaviors to cope with the changes in learning modes and limited opportunities during the pandemic.

Working (part-time) during the pandemic made you less interactive as everything was online. My skills in resolving conflicts with customers were not much cultivated, and my case was with the student's parents. I'll have to be more patient to learn how to talk to them or explain to them the problem. (S3, Teacher Education, Urban)

Working in groups online can cause a lot of inconveniences, I saw that many people did not work seriously. At such times I had to try to look at their good points to continue working. (S8, Linguistics, Urban)

## Discussions

Following the reciprocal interactions paradigm of SCT, the impacts of the COVID-19 pandemic were analyzed under three interacting sets of elements or influences: behavioral, environmental and personal aspects (see [Figure 2](#)). The findings revealed the answers to [research question 1](#) that pandemic not only brought challenges to students' employability skills but also provided opportunities for those having self-regulation to develop their skills and abilities. The shift in learning modes resulted in a shift or a reduction in the quality of internship programs, as reported by the participants. This showed a contradiction to a case study in an Australian university that acknowledged the role of remote internships to have a positive association with skills set for future purposes ([Gill, 2020](#)). The distinction can be explained by the gaps in the quality of two work-integrated learning programs in the two universities' cases during the time of social restrictions. Furthermore, there are several opportunities for students to acquire these abilities, including work-integrated learning activities, networking events, extracurricular programs, internships, volunteer opportunities and international exchanges ([Kinash et al., 2016](#)). During the pandemic, these activities were under restrictions and labor market demand has decreased ([Shiyuan et al., 2022](#)) which may reduce students' chances of acquiring these skills. The limitations of these work-based learning activities can contribute to a negative sense of self-doubt when there are not plenty of possibilities available for students. However, the pandemic was considered a chance to enhance technological literacy and self-regulated learning strategies among students to enhance their skills, such as professional skills (data analytics), or soft skills (teamwork). In this study, the reciprocal relationship among three factors has been illuminated through students' experiences of adapting to changes in the learning environment by fostering positive emotions and maintaining good behaviors. The behaviors affected the environment in the way that students created personal acts such as taking advantage of digital tools in the virtual learning area. Digital literacy and digital tools are crucial for graduates to overcome challenges in employability ([Bejaković and Mrnjavac, 2020](#); [Bennett et al., 2020](#)). Research data showed mixed feelings and attitudes from participants. Some doubtful feelings arouse from students' perception as a consequence of rare chances of jobs. Students' perception that there are fewer career chances as a result of the COVID-19 pandemic adversely impacts the connections between human capital and college students' employability ([Shiyuan et al., 2022](#)). Therefore, students can benefit more from their employability potential if they could adjust their thoughts more positively. It was also reported that emotional factors impacted the environment through students' use of positive virtues, such as resilience, or perceiving themselves as having a benefit of an introvert, to alter environmental conditions. Social-emotional competence is important for a positive experience in the learning process ([Flores et al., 2022](#)), thus when they developed a high level of self-efficacy ([Schunk and DiBenedetto, 2020](#)) and self-management skills ([Qenani et al., 2014](#)), learning experience during difficult times was well-managed, thereby students became adaptive and confident at improving skills. The study contributes to a current body of literature that positive emotions and effective behaviors help students overcome difficulties and expand employability skills during hard times of crises.

The second aim of the study is to explore how students apply an agentic act to turn disadvantages into advantages and overcome challenges happening to their employability skills. Environments impact people's ideas and behaviors, whereas behaviors change people's thoughts and surroundings ([Schunk and DiBenedetto, 2020](#)). Students in this study acknowledged the strengths of self-autonomy, "being autonomous is an individual story, not a matter of environment or university." This aligned with the results of [De Vos et al. \(2011\)](#) who pointed out that individuals who self-regulate their behavior perceive themselves as more employable, which increases their chances of success and widens their options for work. SCT ([Bandura, 1986](#); [Zimmerman, 2002](#)) postulates that people utilize their ability to self-

regulate to enhance their feeling of agency. In order to achieve their learning objectives, successful learners build routines and invest a lot of time and effort in arranging their learning environment. This study identified that self-regulated learning strategies complied with the effort to apply agency to resist from difficulties of the learning environment and develop employability skills, which was also proved in the literature that students developed a sense of autonomy and self-discipline by overcoming obstacles including an increased workload and an unfavorable learning environment (Gelles *et al.*, 2020). Participants in the present study were reported to connect by seeking help from alumni, direct managers and supervisors to give feedback on their performance for skills, and to seek rare opportunities for internships. This showed that students were aware of the benefits of connecting across many teams, adjusting to new situations and communicating effectively across various platforms, which were appreciated by employers in the journey of enhancing graduates' capacity (Succi and Canovi, 2020).

The study concurred with previous research that there were differences in the adaptations of students to the crisis. According to Usher and Schunk (2017), high self-efficacy learners have stronger self-control, have more optimistic outlooks, anticipate positive results and keep going when things become tough. Conversely, those who question their own effectiveness are less driven, believe their efforts are in vain and are more inclined to give up (Schunk and DiBenedetto, 2014). The study findings reflected an alignment in the different degrees of self-efficacy among informants. Specifically, those who believe in their strengths, and understand themselves can navigate successfully through difficulties; meanwhile, those who are unsure about their ability often fail to get a job throughout this phase, then they may continue to have a sense of self-doubt and uncertainty for the future career path. This can be explained that career transitions may not occur naturally but rather on purpose, necessitating that each person develops self-efficacy (Bandura, 1999). Individual self-regulatory competencies are among the key factors that decide the positive or negative online learning experience (Flores *et al.*, 2022), and better equipped to manage time and attention, and make the most of available resources (Zuffianò *et al.*, 2013). This study contributed to the current body of literature about self-regulated students not only displaying autonomy in their learning process but also how to take advantage of resources in disadvantaged situations to manage careers and upgrade employability skills. Study findings demonstrated that there are no significant differences between rural and non-rural students in the impacts of the global crisis on students' employability, except for communication and networking skills.

### Conclusions, implications and future recommendations

To conclude, borrowing the framework of SCT, the study found that the global pandemic presented not only a challenge but also an opportunity for Vietnamese undergraduates to develop employability skills following environmental, personal and behavioral aspects. Even through hardship, those who achieve a higher level of self-regulation and career management skills might result in effectiveness for skills development. Different groups of students showed distinct features of coping behaviors to challenges. Those who possessed a higher level of self-efficacy and self-regulation would be more confident about future skills, meanwhile, the ones who lacked self-confidence felt distracted and directionless for future career development. Unequal opportunities for employability skills acquisitions, specifically networking skills, were identified. Hence, it is recommended that university teachers and student affairs officers enhance equal opportunities and encourage students to connect, regardless of their social economic status. Furthermore, research data revealed that the quality of internship programs in Vietnamese universities remained at a low standard, especially during emergencies; accordingly, more efforts should be made by higher education institutions to put in place job-based learning programs to provide students with first work

experience and improve their career chances (Andrews and Higson, 2008). Since students' self-regulation and agency in altering different factors play an integral role in deciding their employability skills cultivations, students are advised to actively reach out and create opportunities for themselves, such as searching for jobs, connecting with experts and self-manage career development journeys. For future crises that may happen and affect employability, each student should prepare plans to handle unfavorable situations and take advantage of available resources to thrive when passing by difficult times.

Although this research adds to the growing body of knowledge in the field of higher education, its shortcomings must also be acknowledged. Firstly, the interviews were done retrospectively; thus, the quality of the information may be impacted in some way as individuals had to recall earlier experiences. Due to the small groups of students at a Vietnamese university, the study findings should not be generalized to a larger population in the same or different regions. As the study only focused on a homogenous group of Vietnamese undergraduates, it is recommended for further studies be conducted with a wide variety of cultural diversity among participants, for instance, international students. Further research should also be done to identify the views of other stakeholders, namely teachers and employers in future uncertain circumstances. Quantitative studies or mixed-method studies could be conducted to precisely measure the impacts of other situational challenges or opportunities on students' employability skills.

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(The Appendix follows overleaf)



	Interview excerpts	Codes	Themes
<b>Table A1.</b> Examples of codes and themes for data analysis	1 I didn't have much interaction with teachers The pandemic made our internship courses become underqualified The restrictions during the pandemic made it even harder for me to connect	Social interaction Internship opportunities Social interaction	Environmental factors
	2 I felt lost and doubtful about my future I set up long-term goals for my career instead of short-term ones like getting a high grade During the pandemic, I had more time to evaluate my progress and skills	Negative feelings Goal-setting Self-reflection	Personal factors
	3 I focused more on networking with alumni For comments on my performance in this situation, I turn to my line manager I saw that many people did not work seriously. At such times I had to try to look at their good points to continue working	Networking Seeking feedback Being positive in group work	Behavioral factors
	<b>Source(s):</b> Table by the author		

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