

Toward remote work: Online internship in time of pandemics

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Abstract

The pandemic deeply affected the curricular internship in higher education since the emergency provisions included mobility limitations and companies' closure. Since curricular internships are often compulsory for degree attainment, the universities reacted in different ways to ensure the completion of the study programme. This article reports on the collection of data carried out in April-July 2021 in the frame of the ON-IT project about provisions adopted by universities during the worst period of the pandemic emergency. Results are discussed, and the conclusion highlights the next steps of the project development to ensure the quality of online and blended internships to support the acquisition of employability skills for remote work.

Keywords: online internship; work-based learning; hybrid models; employability; digital transformation

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1. Introduction and reasons for the experience

Curricular internships in higher education were introduced almost in all European countries around the 1990s, following major reforms after the agreement on the Bologna Process. Since then, internships have been common in medical education since the 1920s, and in particular programmes,

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particularly in the USA, since the 1960s. An internship is generally understood as work practice carried out during studies¹ to favour the acquisition of practical knowledge and skills (Daniels and Brooker, 2016; Moore and Morton, 2017), transversal competence and understanding of the world of work (Farmaki, 2018; Kapareliotis et al., 2019), and support building of professional networks for future work insertion (Stanton, 1992). Therefore, internships are intended as work-based experiences with a high learning component.

The usual process of the internships entails collaborative learning design and joint implementation by three players – the student, the university, and the company. Arrangements can be different, following organisational issues or type of degree. Still, all share the same core process: this includes a preparation phase (contacts and agreements between the future intern and the company, definition of the learning outcomes and the tasks to be carried out, administrative duties, such as insurance and agreements between the sending and the hosting organisations), an implementation phase (the intern carries out the plan as designed, mentoring by the supervisors, and monitoring of the activities), an evaluation phase by the three involved players. There could be challenges both in design and implementation, such as different expectations (Sauder et al., 2019), difficulty in assessing competence-based learning (D'Angelo, 2014; Riccio et al., 2015), poor supervision (Kai Wah Chu, 2020), and in general unavailability of quality internships (Narayanan et al., 2010): however, internships have clear benefits for all the involved targets, and well-established in higher education, and integrated into regular processes.

Yet, the previous consideration applies to in-place work only: in Springtime 2020, when the pandemic emergency forced Italian educational institutions and a considerable percentage of companies to stop in-presence work, both organisations appeared unprepared to face the challenge of online work-based learning. While a significant amount of research and previous practices supported the challenge of shifting to fully online learning, online internships were uncommon or limited to specific fields such as information technology (Ruggiero and Bohem, 2016). After all, also remote working was unusual: in 2019, an average of 5.4% of employed persons were working from home regularly (Eurostat, 2020), which increased to 12.0% in 2020; in 2021, the Eurofund survey stated that telework is to become normality in Europe, and after the pandemic experience there will be “no looking back”.

¹ The specific meanings of the terms “internship” and “traineeship” are not commonly agreed, and often used interchangeably. In this article, we keep the European habit to identify with “internships” the programmes carried out during the study years, and contributing to a degree achievement, and “traineeships” those learning programmes carried out after graduation.

Benefits and drawbacks are associated with remote work: Pretti et al. (2020) identify advantages such as flexibility, autonomy, productivity, job satisfaction, and decreased stress; among drawbacks are loss of communication, reduced support, and difficulty in work-life balance.

Following work practice, online internships are likely to become common in the future, either as fully remote or blended/hybrid experiences. Insofar little research has investigated online internships in higher education: most of the work focused on organisational and management issues, such as lack of training of supervisors (Frank and Oliver, 2012), equipment (Irwin et al., 2021), recruiting (Jeske and Axtell, 2014; 2018), difficult work-balance of the intern (Allen et al., 2015; Charalampous et al., 2019). Also, some relational and personal issues can affect the process, e.g., difficulty in building trust between the company and the intern (Irwin et al., 2021), a feeling of isolation (Teng, 2021) and the need for a high level of self-regulated learning (Dabbagh and Kitsantas, 2004) by the intern, little understanding of the company business culture (Jeske and Axtell, 2014). Still, the advantages are potentially very high for the involved players. Remote learning at work allows experiences that might be impossible otherwise for distance and cost reasons (Vriens et al., 2010), enabling participation in an international community (Ruggiero and Boehm, 2016). As regards skills development, an online internship also can foster the acquisition of specific skills, such as digital skills, online cooperation skills, etc., and support the intern in facing the increased complexity of the digital transformation of the labour market.

In Italy, remote internships, as well as remote work, is a pretty recent phenomenon. Italy also has a level of digital skills of citizens and workers far below the European average (Pedone, 2022), which hinders the shift to digital arrangements. However, as in the rest of Europe, the pandemic experience boosted experiences in both fields. As regards higher education, research confirms that the online internship can significantly support skills acquisition, particularly digital and organisational skills (Altamura and Disalvo, 2022), decision-making skills (Massariello et al., 2021), self-direct career management skills (Del Gobbo et al., 2021). On the other hand, for some degrees, the digital internship was not enough to support professional skills development, as in the case of social care (Bobbo and Moretto, 2020).

On this background, a European consortium composed of five universities and two networks of universities and companies undertook the Online Internship in Tourism (ON-IT) project to develop an implementation model for online internships for higher education institutions. The starting point for the design was to understand how the universities dealt with the need to carry out a curricular internship, which is compulsory for degree attainment. This article reports on the findings of the Italian data collection. The overall project survey

included 145 respondents (50 interns, 32 academic supervisors, 42 company supervisors, 21 support/admin staff involved in the process) from 14 countries (10 in Europe) (Stefanelli and De Giorgi, 2021). The analysis results will support the drafting of a potential process for ensuring relevant online and blended work-based learning.

2. Methodology

The study aimed to understand how the universities reacted to the lockdowns and the limited mobility during the pandemic concerning curricular internships. In this study, an online internship, also referred to as virtual or e-internship in literature, is defined as a form of remote work-based learning that takes place over the internet and by means of digital communication tools (e.g., audio and video conferencing systems for communication, online shared platforms for joint work, etc.). The aim was to identify the perceived strengths and weaknesses of involved players to design an effective model of online work-based learning.

The aims of field research were, therefore, to answer the following questions:

- The universities adopted which formats of internships during the pandemic?
- Which were perceived as obstacles or success factors in the adopted processes?
- Which approaches and procedures were used or adapted to ensure an effective learning experience?
- The study's research question was: are there specific pedagogical or procedural aspects universities should consider in designing online internships?

2.1 Data collection

Data collection in Italy took place between April and July 2021. The first round, composed of an online questionnaire, ended in June 2021; the second round, consisting of six semi-structured interviews, was carried out in July 2021.

Online questionnaire (Q). The online questionnaire, based on the three key areas of investigation defined for field research, was composed of: introductory items related to the context (location, field of study, sector in which the internship took place); description items related to the experience: length, description of the tasks and the process; exploratory items: previous online interviews experiences, challenges and obstacles; the perceived value of the

online experience; suggestions and recommendations from experience (for the respondent target).

Semi-structured interviews (I). The semi-structured interviews were also based on three areas of investigation, including questions such as introductory questions related to the university offers for internships in times of pandemic; descriptive questions on the experienced online internships; exploratory questions including organisational aspects, activities (activation, monitoring, evaluation), challenges and opportunities, and lessons learnt and recommendations.

2.2. Sample composition

The addressed targets were the four profiles involved in the internship process, namely:

- Interns;
- Support staff (officers of the career/internship centre);
- Academic supervisors;
- Company supervisors.

The sample was composed of 81 respondents to the questionnaire from the four key targets corresponding to the players involved in the internship process, namely:

- Interns (I): 20 respondents;
- Support staff (officers of the career/internship centre) (S): 14 respondents;
- Academic supervisors (A): 19 respondents;
- Company supervisor (C): 28 respondents.

Interviewees included two former interns, one higher-education career counsellor, two academic supervisors and two company supervisors (7 interviews total). The average interview duration was 30 minutes.

Interviewee sampling was limited to questionnaire respondents declaring availability to be contacted afterwards (45% of interns; 47% of support staff; 73% of academic supervisors; 82% of companies): applied criteria included type of degree (STEM/Social Sciences and Humanities) for academic supervisors and students, the field of activity for companies and geographical distribution. In the case of support staff, a convenience sample was used since the time required by the potential respondent to get permission from the institution was too long.

2.3 Geographical distribution

All respondents but two were based in Italy, with the following distribution across the country:

Table 1 - Geographical distribution of respondents to the questionnaire

Location	#	%
Northern Italy	30	37
Central Italy	40	49
Southern Italy	9	11
Abroad	2	3
Total	81	100

Interviews were carried out in Northern Italy (1 intern, 1 teacher) and Central Italy.

2.3.1 Field of study/sector and internship duration

The internship duration varied from a minimum of 120 hours to three months.

The most represented field of study of interns was Business and Economics (25%) and Humanities (25%), followed by Engineering (15%). The most represented sectors in which the internship took place were Services/Consultancies (18%), Social services (18%) and Education and Training (18%), followed by Cultural Heritage and Tourism (11%).

3. Findings

3.1 Before and after the pandemic: availability of online internships offers

Of the 29 respondent companies, only 3 (10%) had offered online internships before the pandemic. After the experience, 17 (58%) declared to plan an online internship for the future. Among the 14 organisations providing remote internships only after the pandemic emergency, 7 belong to the services sector (company consultancy, including marketing, IT, and project management), 3 to social services, of which 1 public company, and 4 to education and training (2 on education and 2 on training). The reason for offering more online opportunities is mostly related to the availability of previous experience during the pandemic, which allows inserting online interns easily. However, it applies to specific profiles or specific tasks. In the consultancy sector, it generally appears that the online internship is perceived as an advantage and does not affect the effectiveness of the intern's work. On the contrary, e.g., in social services, some tasks would benefit from online work

(for example, database update and reports writing), and others would require necessary physical presence (for example, meeting patients’ families).

Out of the 10 universities represented by respondents (academic supervisors and career officers), 2 offered some online internships before the pandemic; after the experience, all consulted universities declared to offer online internships since the end of the lockdown and to plan them for the future.

3.2 Type of internship

Table 2 highlights the type of online experience carried out during the pandemic (not applicable to company supervisors, even if some information about a blended experience was mentioned by one of the companies in the programme’s description):

Table 2 - Type of internship

Type of internship	Interns	Career officers	Academic S.	Total
Fully online	16	4	8	27
Hybrid (partially online)	1	0	0	1
Replacement programmes	3	8	11	22

Replacement programmes, e.g., learning programmes providing university credits as a replacement for the compulsory credits for the internships, included:

- Short research essay writing.
- Career development programmes or other forms of career development (e.g., workshops, seminars).
- Webinar series or learning courses.

Also, considering constraints to mobility during both the lockdown and the following months, blended programmes were not considered as such (the only respondent concluded online an internship regularly started), even if mentioned by one of the respondents:

Q.C.19 (Public Administration) “The internships in our company took place both in-person and electronically because, as an essential service, we have never closed down, and we have always been open to users”.

3.3 Identified challenges

Overall, the experience was positive for most respondents from all the represented targets. Significant challenges are summarised in Table 3.

Table 3 - Challenges of online internships

Challenge	Interns	Career Officer	Ac. Sup.	Co. Sup.	Total
Business culture, company functioning	0	0	0	4	4
Organisation (between intern and the company)	2	0	0	4	6
Time management, life-work balance	5	0	0	0	5
Internet connection or equipment	3	0	0	1	4
Communication	1	0	0	1	2
Motivation (keep doing)	2	0	0	0	2
Feeling of loneliness	1	0	0	0	1
Less significant learning experience (than F2F)	1	1	0	0	1
Monitoring and recording of attendance	0	2	1	0	3
Complex coordination between involved players	1	1	1	0	3
Difficulties in finding places	0	3	0	0	3
Difficulties in exchanging physical material	0	0	0	1	1
Hardly applicable to some fields	1	0	3	2	6

Furthermore, three interns report general distress due to the pandemic and mobility constraints, which cannot directly relate to the internship experience.

Two of the interns assessed the experience negatively, but they were in a replacement programme; therefore, there was, in fact, no internship. Also, they claimed the critical the daily organisation, which was not well-designed; in these cases, however, the internship started F2F, then shifted online, which might explain why the experience design was inaccurate.

Most supervisors, either academic or in-company, were positive about the experience. Still, a few stressed the need to have F2F work in some specific fields or sectors – e.g., those using laboratories or those dealing with users, also disadvantaged, such as, for example, in social work. This point was also recalled by the two interviewed academic supervisors, one referring to social work, the other working in the STEM field.

Interviewed interns and company supervisors confirmed the above scenario: while interns identified time management and self-organisation as the main challenges, the companies pointed out the communication and organisation of distance work as the main difficulty.

Concerning monitoring and administrative procedures, none of the respondents (either in the questionnaire or in interviews) pointed out difficulties or disadvantages: some interns mentioned, although not as a complaint, the

need for more frequent monitoring conversations with the academic supervisors.

3.4 Advantages and added value

Table 4 summarises the main advantages identified by respondents.

Table 4 - Advantages of online internships

Advantage	Interns	Career o.	Ac. S.	Co. S.	Total
Flexibility and autonomy	2	1	1	2	6
Reduced costs	2	0	0	1	3
Effective learning	1	0	0	0	1
Easiness to work from home	1	0	0	0	1
Skills acquisition	2	0	1	1	4
Awareness of the world of work	0	0	1	2	3
Online relation reduces relational difficulties	1	0	0	0	1

Also, in this case, the interviewees confirmed the above picture. One of the interns stated that she “would not have done this type of internship if F2F, as the company was based in another town; it would have been unaffordable” (I.I.2). The two interviewed interns also reflected on the acquisition of transversal and soft skills, such as time-management, self-organisation, and problem-solving, less on the links between theory and practices. This reflection was not the focus of the academic supervisors. They referred more to the acquisition of hard skills and the impossibility of performing practical tasks (the latter applies to the respondent working in the STEM field).

Both consulted company supervisors, although recognising that the online internship allows greater flexibility, pointed out that the experience success also depends on the type of sector and job position of the interns.

4. Discussion and conclusions

The data collection provided an overview, although partial, of the reaction of the universities and their business partners to the emergency state due to the pandemic concerning internships.

The first relevant outcome of the analysis reveals that the online or blended/hybrid internship was not at all common across the respondents, either universities or companies. However, after the pandemic experience, most companies and universities also decided to offer this learning opportunity. Several universities could not provide a complete online internship in a short

time because of the scarcity of places and limited time to invest. The lockdown started at the beginning of the second academic semester of 2020, which is usually the internship semester for students in the third year of their Bachelor's or second year of their Master's degrees. Almost half of the institutions consulted offered replacement programmes, such as short learning courses, project works or another type of internal learning offer that engages the student with business, such as consultancy projects or business simulation). There is, however, no evidence of strategic thinking: among respondents, one comment refers clearly to 'making sense of the gained experience'; no word relates to the changing labour market or the additional skills potentially provided by online or blended experiences. Little reflection about the pedagogical value of the experience emerged from the data.

A second point concerns the administrative procedures, which were not surprisingly an issue for the consulted targets. Career offices, in particular, do not highlight any significant revision of the primary process, which was regularly carried out with minor adjustments (e.g., in attendance recording). Channels and frequency of monitoring are the most apparent modification from the normal process.

A third point is analysing the respondents' advantages and disadvantages. Results confirm what can be intuitively guessed: the most significant benefits are flexibility of time, increased autonomy and reduction of costs, while the intern and the supervisors differently perceive the disadvantages – the first focused on personal struggles such as time management and self-organisation, the second more on organisational issues, communication and lack of business culture acquisition. Generally, the impression is that online internships were considered by the involved people as temporary experiences and consequently poorly embedded into the normal processes.

Against these results, it should instead be considered the impact of the pandemic on work organisation and consequently on the skills required by the labour market. This shift requires a deeper reflection on the educational value of online or hybrid internships more than on the organisational features of the process. Work-based learning experiences are intended to bring added value to content learning by stimulating and making evident relations between theory and practice, but also to support students' employability by promoting and making clear the connection between education and work. The internship's value does not change if it takes place over the internet and through digital tools. However, it adds some specific requirements to higher education institutions. The most obvious is related to "the online" itself: the intern should be digitally competent, following the definition of citizenship in the digital era

of the Digital Competence Framework for Citizens (DigComp 2.2²) to take full advantage of the opportunity. It is also essential that relations between interns and supervisors, particularly academic supervisors, are planned and structured to promote interns' self-reflection and sense-making of the experience for learning and personal/professional growth. Finally, an in-depth discussion should take place at the degree level on expected learning outcomes: all internships may include a part of a hybrid or blended work; not all internships can be fully online. Although limited in size and scope, collected data showed some major issues in tasks requiring physical action – such as, as reported by an academic supervisor, ‘practising with pipettes and reagents in a chemical lab’. On the company side, the sample does not sufficiently cover sectors to provide relevant data on the potential of online work-based learning. However, organisations that adopted remote internships after the pandemic experience were mostly in the Services sector. Further work is needed to understand how it can work in other fields, such as manufacturing, which is relevant to the Italian economy.

Based on these initial results and considerations and consultations with university professionals, the ON-IT consortium worked toward the definition of a proposal for a process ensuring quality online and blended internships in higher education, both for learning outcomes achievement and to support students' employability. The piloting of the proposed approach is running in the field of Tourism at the time of writing. Further research data will be available after the end of that phase.

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² The Digital Competence Framework for Citizen (DigComp), which provides a common understanding of what digital competence is, published its new edition in 2022.

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