

ONLINE EDUCATION FOR YOUTH EMPLOYMENT

Testing the effectiveness
of using low-cost
e-learning courses
to reduce
youth unemployment
in Bosnia & Herzegovina

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Problem Overview

Bosnia and Herzegovina is struggling with an almost intractable learning and youth unemployment crisis. The country suffers from pervasive structural unemployment and a formal education system that continues to deliver sub-optimal educational outcomes and graduates with skillsets grossly out-of-tune with both present employer demands and the needs of the future economy. The myriad of systemic educational and labor market issues can only truly be resolved with bold and far-reaching reforms to education system governance and investment, a far greater degree of collaboration between the public sector and economic actors, and significant innovation in course structure, content, and delivery. Employers who do have open vacancies cannot readily fill them, and the vast majority of employers do not have the appetite or depth of resources for heavy investments in training or retraining new recruits to make up for what the education system has not managed to accomplish.

Compounding these factors, year over year, few improvements have been made to the active labor market policies and measures (ALMP/M) at entity – and sub-entity levels to ameliorate unemployment. While funding is generally available and allocated, the policies and measures remain static, unimaginative in design, poorly promoted, clunky in application procedures, and ultimately under-utilized. They are also suspected of doing little to combat long-term unemployment or support young people re-entering unemployment when their employers' hiring and wage subsidy measure expires. The different layers of government are failing to assign sufficient human resources to redesign a more sophisticated array of measures, professionally implement them, and evaluate their impact credibly. There are no quick fixes to these problems; while recommendations for reforms and improving ALMP/M are well-known, the trialing and evaluation of new and creative solutions are in relatively short supply.

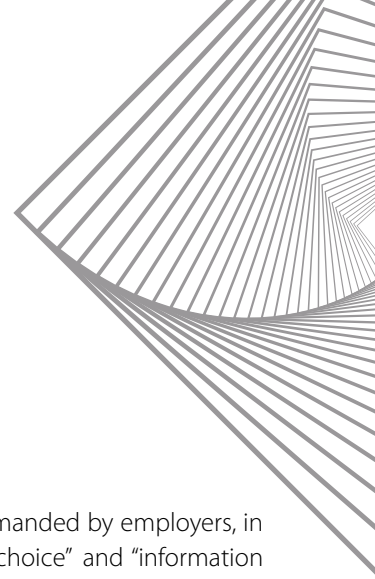
This brief report summarizes the results of an impromptu trial conducted by the Swiss government-supported youth employment and job creation project, MarketMakers, and its partners to see what the social return and cost-effectiveness would be of a low-cost e-learning voucher experiment. Section 2 describes the trial and how it was designed and administered. It is followed by the trial results and a discussion of the results in Sections 3 and 4 before conclusions are drawn, and recommendations are made in Section 5.

02

MarketMakers' Initiatives

In order to augment engagement with its various career guidance and retraining focused investments, MarketMakers elected to make approximately 9,000 EUR available to six different partners to purchase and disburse courses from the renowned e-learning platform Udemy. Udemy was chosen over other providers for three reasons: the breadth of its course offering, the low average cost per course, and, notably, its functionality permitting the "gifting" of courses (as a proxy for a voucher). Gifted courses were made available to young people following, or as part of, their active engagement with the partners' core career information service offer (in the case of two partners), coaching/mentoring offer (in the case of one partner), or retraining offer (in the case of three partners). For example, vouchers may be gifted to those who participated in a Q&A webinar hosted by a project partner, joined a mailing list for more information, completed small online tests/quizzes on the partner's website or social media channels, or demonstrated interest in, or signed-up for, a classroom-based training course of a similar nature.

In order to reduce difficulties with recipients selecting their own courses – given the sheer magnitude of courses offered online by Udemy – the project instructed experts from the partners responsible for disbursement to give careful thought to course selection, either choosing courses for recipients or providing a small selection of choices for recipients themselves to choose from. The idea was to be more precise in guiding or directing recipients towards courses that were deemed of a higher quality – both in curricula



content and delivery – and also towards courses that offer content in line with the specific skill sets demanded by employers, in this case, in the professional, technical and creative services sectors. It also reduced “paradox of choice” and “information asymmetry” effects, offering a method with less friction in decision-making from the recipient’s perspective while ensuring more market-relevant decisions, and therefore recipient confidence in, and endorsement of, the course they received.

Overall, 792 people received courses from the six partners, though the remainder of the report on this trial focuses on a sub-population of 619 voucher recipients from the project’s two most significant trial partners, freelancing.ba and itkarijera.ba, both of whom provided career information services via their online platforms as their core offer. In total, 365 courses were gifted via the self-employment and skill acquisition promotion platform, freelancing.ba, which is managed and run by the IT company JS Guru/Got Solution. A further 254 courses were gifted by the country’s IT association, BIT Alliance, as part of their promotional campaigns for itkarijera.ba, which is a specialist IT profession promotion platform managed by the association on behalf of Bosnia and Herzegovina’s IT/software development industry.

Course gifting began in August 2020 and ended in April 2021, with courses being gifted in batches over a small number of months so as to spread out and sustain engagement with the platforms. In July 2021, MarketMakers collaborated with both JS Guru/Got Solution and BIT Alliance to measure the initial results from the trial. A link to an online survey was emailed to the entire sub-population of 619 people by the two partners, with each partner incentivizing responses with the offer to enter into a prize draw for small electrical equipment items (e.g., headphones). A total of 200 people completed the survey, the results of which are presented in Section 3, representing 32.3% of the total sub-population.

03

Initial Trial Results

Of the 200-person sample, 93 course recipients were already in employment upon receiving the gifted course, while 107 (53.5%) were not working (n=54 students; n=53 unemployed). Given MarketMakers’ focus on unemployed youth and education-leavers, the remainder of this results section will focus on the experiences of the 107 sub-sample. At the time of measurement, 30 of the 107 people in the sub-sample had entered into employment or self-employment. They were asked the extent to which they believed the course was instrumental in their change of employment status, to which 16 of the 30 assessed the courses to be either significant (n=9) or highly significant (n=7). Learning behaviors also seem to have been impacted, with 14 of the 16 (or 87.5%) motivated or extremely motivated to sign up for similar courses in the future (irrespective of already having achieved their objective). This pattern is echoed among the wider sub-sample of 107, with a total of 88 (or 82.2%) motivated or extremely motivated to invest in further self-education, suggesting a high degree of satisfaction with the overall experience. The group of 16 was composed of 9 men and 7 women who were mostly young/under 30 (n=12) and educated to the degree level (n=11). Eleven entered into employment, while the other five commenced self-employment or freelancing activities.

To contextualize the results further, it is important to note that many of the 107 sub-sample had only recently received their courses when the measurement took place. For those who received their gifted courses in one of the earlier batches, a maximum of 3 months would have passed between completing their received course and sending the impact assessment survey. However, for the majority of the 107, the point of measurement, unfortunately, fell very soon after course completion or during the course itself, with 77 of the 107 (32 of the 53 unemployed; 45 of the 54 students) reporting in the survey that they still had one or more modules of their course to complete. Indeed, 3 of the 16 who did change their employment status – and had significantly attributed it to





the Udemy course – had also not fully completed their course at the time when they were surveyed. The earlier-than-desirable measurement timing was unavoidable and needed to be carried out as part of the administrative and operational closing of MarketMakers’ second four-year phase. This methodological flaw is assumed to have suppressed results, given that it is customary to measure employment-after-training at three-, six- or twelve-month intervals following course completion. It is also worthwhile to mention that in Bosnia and Herzegovina, it is not yet legally possible for full-time students to be employed; they can only be temporarily engaged for work. With 54 of the 107 being registered as full-time students, both at the time of course gifting and at the time that they completed the survey, the results are perhaps of even greater interest since effectively 30 out of 53 unemployed people changed their employment status either during or within several weeks of having completed their courses, 16 of whom (16 of the 53, or 30.2%) reported that the gifted courses were a significant contributor to, or catalyst for, their status change.

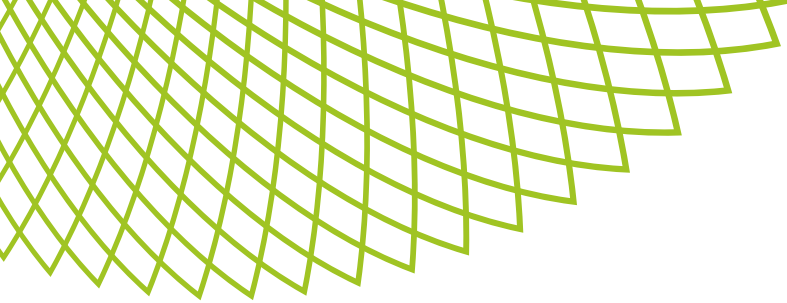
It is also important to reflect on the impacts that the ongoing COVID-19 pandemic’s effect on the country’s economy and employers’ hiring behaviors may have had on moderating the social returns of the trial. Nevertheless, for those involved in the trial who are yet to benefit from a change in their employment status, it is worthwhile to keep in mind the positive impacts the trial has had on their overall employability, as well as their general learning behaviors and ability to self-educate (which themselves have a positive bearing on future employability). This would especially be true for the 54 full-time students that were gifted courses, who are already taking action to prepare themselves for being an active jobseeker upon leaving the education system; it is hoped that this lessens any unemployment spell experienced in the education-to-labor market transition.

04

Analysis of the Trial Results

With regards to the 619 sub-population upon whom the impact assessment focused, the project invested a total of 6,300 EUR into covering the costs of courses offered via the two partners, giving an average spend of 10.20 EUR per gifted course. In this instance, 30.2% of course recipients who were unemployed prior to being gifted a course were supported from unemployment into either employment or self-employment. Course gifting, in unison with other career information and guidance services via the platforms, has been a hugely cost-effective intervention. Notwithstanding the consequences that the early impact assessment has had on deflating the social return, it is estimated that a well-targeted measure concentrating solely on the unemployed could produce or support at least 10 transitions out of unemployment for every 337.50 EUR spent, or approximately 33.75 EUR per transition, in addition to numerous other positive side effects, both for those who enjoyed a transition into employment or self-employment and those that did not. However, the aforementioned numbers refer only to the cost of the gifted courses. An estimation of true costs, covering the partners’ overheads for overseeing and running the course gifting trial, must also be taken into account. These would include but are not limited to: expert inputs into course selection, developing interactive platform features or off-platform engagement activities through which to administer course gifting, the gifting process itself encompassing the online forms for purchasing courses for others on the Udemy website, as well as the partner’s involvement in the processes of impact assessment. To this end, MarketMakers would assess the true cost per successful transition to be at least 40.5 EUR. This fuller representation of the costs would do little to detract from the fact that this would be an active labor market measure (ALMM) that far outperforms those currently offered in terms of social return on investment (on average, ALMM expenditure amounts to approx. EUR 2,100 per beneficiary), especially when the positive side-effects of those not immediately changing their statuses are taken into account and notwithstanding the facts that the measurement of this trial cohort came far too early and the trial took place during a pandemic.

Aside from cost-effectiveness, there are other points of interest to discuss. Beyond the project’s expectations, the trial has shown



the intervention's applicability in supporting those without tertiary level qualifications; 31% of those enjoying a successful transition possess a high school diploma as their highest qualification. Rather than being an intervention that solely supports those nearer to employment to "get over the finish line" – i.e., in circumstances of a modest structural horizontal mismatch – it may also be reasonably effective at giving a boost to those with fewer qualifications, who are assumed to be more distant from employment. This is certainly a working hypothesis in industries and professions whereby the possession of applied, market-relevant, and ready skills outweigh qualifications important "on paper."

Training-centered ALMMs, or those with a training component, constitute the minority among the suite of measures offered by the different governments of Bosnia and Herzegovina. There are many reasons for this: i) politicians believe that spending on training is less certain to create employment than providing employers with hiring or temporary wage subsidies; ii) institutions are less motivated to increase employability and skill-seeking behaviors as an intermediate step towards lessening long-term unemployment, and rather more motivated to immediately reduce unemployment statistics; iii) training-related measures are perceived as more difficult to design and administer; and, iv) training-related measures, when implemented by local training/adult education providers, require the payment of VAT, adding to their cost. There are other additional reasons. For example, to a certain extent, the measures are limited to what local training/adult education providers can offer, from both a content and quality perspective, but also a delivery modality perspective. Classroom delivery requires beneficiaries to live locally, to conform to the training timings offered, and there are limits to classroom size. The utilization of (global) e-learning platforms or massive open online course (MOOC) providers overcome many of these challenges, and while they cannot create employment as certainly or as immediately as employer hiring or wage subsidies can, the trial suggests that they could have a far-reaching effect at a fraction of the cost. With innumerable, oftentimes free, or low-cost courses and study programs online, there may be even greater cost-effectiveness to be attained as long as careful and considered course selection curation (by experts) remains at the heart of this intervention.

Improving the rate of successful transitions may also be possible by adding complementary actions, potentially to be performed by a combination of public employees and voluntary mentors/coaches associated with the partners themselves. For example, employment bureaus could assist in the identification and encouragement of unemployed youth to sign up for partner activities. Volunteer mentors could also be assigned to motivate unemployed youth to continue with their self-education, and potentially, to troubleshoot, so courses are completed. Moreover, partners could include a FAQ seminar/tutorial for each course so experts can help unemployed youth with challenging elements of the course content, and webinars hosted by partner platforms following course completion could help to outline "next step" scenarios and pathways for young people to continue to follow should employment/self-employment opportunities be imminent. None of the aforementioned "added value" activities were part of the trial, and as such, there is great scope for improving the intervention's design.

Finally, it is worthwhile to emphasize a small number of contextual characteristics that undoubtedly aided the trial. First and foremost, the vast majority of courses available on (global) e-learning platforms or from MOOC providers are in English. The relatively advanced English language capabilities of youth with high school diplomas and above in Bosnia and Herzegovina, even among the unemployed, have been the bedrock for this intervention. Similarly, high levels of internet access (according to official statistics, the everyday usage of the internet is recorded among 98.8% of young people belonging to the 16-24 age cohort in 2020) and computer or smartphone usage among the key targeted demographic – unemployed youth – have been crucial to the trial succeeding. As a final reflection, while the COVID-19 pandemic may have negatively impacted the trial with respect to the desired end result (successful transitions out of unemployment), it has also normalized and mainstreamed remote/online learning and given rise to a visibly greater number of e-learning offers, and perhaps even changed perceptions on the value and credibility of e-learning versus more traditional delivery methods.





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Recommendations

The results of this initial trial are extremely promising. With a budget of 6,300 EUR for the 619 sub-population, no specific targeting of unemployed people, and the unfortunate early measurement of the trial's impact, at least 49 unemployed young people are calculated to have been significantly supported into employment or self-employment as a result of taking an Udemy course. Moreover, hundreds of others will benefit in the long run from having both re-engaged with learning behaviors and enhanced their own skills in preparation for the job market in the coming months.

Given the two aforementioned flaws concerning the methodological approach – both the lack of targeting and the timing of the impact measurement, but also related to sampling and assessment approach (e.g., there was no control group, no questions to assess the employability of participants prior to course gifting, and there may have been a potential skew among survey participants towards being more motivated and proactive than average) – the project recommends repeating the trial on a larger scale to perform a more comprehensive analysis of the impacts, preferably using a difference-in-difference study design and surveys that also seek to pick up a greater volume of information about trial participants (and over time). Such an undertaking would better identify the critical success factors underpinning the intervention's high social return (per Euro invested). In this regard, it can be better understood whether this prospective new type of ALMM is also, or even equally, capable of supporting successful transitions among people with a more disadvantaged status such as those not in education, employment, or training (NEETs), those that have been unemployed for more extended periods, or communities of peoples that are to some extent excluded on the basis of their identities.


The larger trial should ideally be performed together with the entity-level Employment Institutes, or entity or sub-entity level Ministries of Economy or Ministries of Education, as lead partners committing their own human and financial resources. The organizational "infrastructure" from the industry that made the initial trial possible – specifically, the roles played by BIT Alliance and JS Guru/Got Solution – could remain, but equally would have to be compensated for to cover human-resource-related opportunity costs. Institutional collaboration with Udemy, or a similar provider, could be sought to facilitate improved market intelligence on skills gaps, course selection, and career or professional pathway development. Should governmental counterparts not wish to lead or participate in an expanded trial, the results of this initial trial should provide sufficient encouragement for other industry, private sector, or civil society stakeholders who are either directly affected by or working to lessen the country's structural unemployment problem to either repeat or learn from and improve upon this initial experiment. Employers should also note that this intervention is applicable for cost-effective talent development and corporate responsibility investments.





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