Lifelong Learning Scale (*versione breve*): Adattamento e Proprietà Psicometriche della Versione Italiana

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Sommario

La sfide e l'instabilità dell'attuale mercato del lavoro richiedono un approccio proattivo e costantemente teso ad aggiornare le proprie competenze per salvaguardare la propria occupabilità. Il costrutto di lifelong learning riflette tale approccio, risultando essenziale per incidere nel mercato del lavoro. L'obiettivo di questo studio era tradurre e adattare in italiano la scala della *lifelong learning* (in versione breve a 7 item). In un'ottica di validità interna, abbiamo valutato le caratteristiche psicometriche della scala con 198 lavoratori e lavoratrici, impiegati nell'industria alberghiera in Italia. Un adattamento col metodo della *back-to-back translation* ha reso possibile valutare la struttura fattoriale della scala a livello confermativo e la consistenza interna in un'ottica di validità interna. Inoltre, l'analisi delle relazioni con la scala di *perceived employability* ha permesso di studiare lo strumento da un punto di vista della validità esterna. Un'analisi fattoriale confermativa ha convalidato la struttura fattoriale, con indici di consistenza interna accettabili. Inoltre, a livello di validità esterna, i risultati indicano correlazioni positive tra la *lifelong learning scale* con la *perceived employability*. I risultati forniscono evidenze incoraggianti circa la validità di queste scale di misurazione, suggerendone l'efficacia nell'utilizzo per la ricerca e l'intervento nel contesto italiano.

Parole chiave

Apprendimento continuo nell'arco della vita, Occupabilità, Strumento di misurazione, Proprietà Psicometriche, Validazione di strumento.

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Lifelong Learning Scale (Short Form): Adaptation and Psychometric Properties of the Italian Version

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Abstract

The challenges and instability of the current labour market require a proactive approach, constantly aimed at updating one's skills to safeguard one's employability. Lifelong learning reflects this approach, being essential for exerting one's potential in the labour market. This study aimed to perform a translation and adaptation of the *Lifelong Learning Scale* (in the short 7-item version) into Italian. To assess the internal validity, we evaluated the psychometric characteristics of the scale with 198 workers employed in the hospitality industry in Italy. An adaptation with the back-to-back translation method made it possible to evaluate the factorial structure of the scale at the confirmatory level and the internal consistency for internal validity, and the relationship with perceived employability allowed us to test external validity. A confirmatory factor analysis validated the factor structure with acceptable internal consistency indices. The significant relationship of the *Lifelong Learning Scale* with perceived employability corroborated the external validity. The results provide encouraging evidence about the validity of this scale, suggesting its effectiveness in research and intervention in the Italian context.

Keywords

Lifelong learning, Employability, Measurement tool, Psychometric Properties, Instrument validation.

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Introduction

In today's rapidly evolving job market, significant transformations have unfolded within the domains of employment and education, driven by rapid technological advancements, societal shifts, and globalisation (Chungtai & Arifeen, 2024), demanding the acquisition of competencies and innovation to be an ongoing challenge that persists throughout an individual's lifespan (Nguyen & Zarra-Nezhad, 2023). The ever-evolving labour market demands and challenges necessitate individuals to continually acquire novel skills and knowledge to stay competitive in the job market (Yadav, 2024). Furthermore, it becomes imperative to employ proactive strategies to address the evolving demands of professional roles and stay updated on the latest trends and technologies (Chughtai & Arifeen, 2024). These circumstances assign growing significance to lifelong learning regarding knowledge and skills acquisition, which is crucial when considering that individuals will remain engaged in learning throughout their professional lives (Cremers et al., 2013). By understanding the variables relating to a lifelong learning approach, we can help individuals develop more effective learning strategies and enhance their long-term career prospects.

Developing valid instruments to measure this construct is a critically important research issue in line with this imperative. For this reason, this study addresses this need by proposing an Italian adaptation and initial validation of the *Lifelong Learning Scale* initially developed by Kirby et al. (2010), which, to date, is missing. The choice of lifelong learning is driven by its central role in individuals' adaptation to the evolving demands of the labour market and their long-term career success. Additionally, by validating an instrument to measure this construct in the Italian context, researchers can contribute to the empirical understanding of how individuals engage in lifelong learning, promoting the development of tailored interventions and policies to promote lifelong learning and fostering their long-term career success and economic prosperity.

Lifelong learning

In our research, we embrace the framework of lifelong learning as outlined by Kirby et al. (2010), which transcends the confines of formal education, extending into informal and non-formal settings, thus underscoring the critical importance of continuous learning across diverse contexts (Candy et al., 1994). It has garnered significant attention within academia and beyond for its capacity to address contemporary challenges while fostering flexibility, resourcefulness, and proactive engagement (Elfert & Rubenson, 2022). Kirby et al.'s (2010)

Lifelong Learning Scale is a self-report instrument that solicits respondents to describe their learning approaches in terms of characteristics identified in the literature on lifelong learning (e.g. Candy et al., 1994). Fourteen items described the characteristics of lifelong learners. Respondents rated their responses on a five-point Likert scale, ranging from -2 (*strongly disagree*) to +2 (*strongly agree*). They found a mono-dimensional structure with an internal consistency, as measured by a Cronbach's alpha of .71. This scale has been utilised in educational and work-related settings to assess lifelong learning attitudes and behaviours. In educational contexts, Meerah et al. (2011) validated the scale among university students in Malaysia, while Lord et al. (2013) did so among engineering students in universities in China and the United States. Neelam et al. (2020) employed the scale to evaluate the impact of learning organisation and processes on life-long learning attitudes among business school students in India, contributing to validating lifelong learning constructs within the Indian educational context. In work-related contexts, Drewery et al. (2020) and Shujahat et al. (2020) used items from the Kirby scale to measure employee lifelong learning orientation, underlining the significance of lifelong learning across diverse settings and its positive impact on personal knowledge management and productivity among knowledge workers.

Study Goal

Despite the significance of lifelong learning, there is currently a lack of validation within the Italian context. A valid tool is critical in accurately assessing constructs like lifelong learning, providing a foundation for effective interventions and policies. Given its connection with the acquisition and maintenance of human capital and employability, this construct holds particular significance (Assefa et al., 2024; Chughtai & Arifeen, 2024). This study aims to fill this gap by presenting an initial validation of the scale measuring lifelong learning among Italian employees in the hospitality industry. We attempted to validate a short form of this scale in Italian, seeking to understand its applicability and robustness even in a reduced version, which may support more agile data collections. We tested its factorial structure at a confirmatory level and computed the scale's internal consistency in terms of internal validity (Grimm & Widaman, 2012). Also, we sought to analyse the external validity of this scale by testing the relationship of the *Lifelong Learning Scale* and perceived employability, which is a variable connected with a lifelong learning approach (Mejeh & Held, 2022; Nimmi et al., 2021). Through this initial validation process, we sought to contribute to understanding this construct and its implications for personal and professional growth in the Italian context.

Methods

Participants

The final sample consisted of 124 participants, the majority of whom were composed of women (N = 108, 87.1%; men = 12, 9.7%; 4 people decided not to disclose, 3.2%). Most participants were aged 35-44 (N = 42, 33.9%; 18-24 = 10, 8.1%; 25-34 = 36, 29.0%; 45-54 = 28, 22.6%; 55 years or more = 7, 5.6%; 1 person = .8% did not disclose their age).

Procedures

The data collection occurred in August 2022. We recruited middle- and top-level employees working in the hospitality industry in Italy through an invitation through social media to complete an online questionnaire on the Qualtrics platform. Before the survey's completion, participants were granted confidentiality, and informed consent was provided to participate voluntarily, per EU Regulation 679/2016.

Measures

Using the back-to-back translation procedure, we adapted seven items from the Lifelong Learning Scale (Kirby et al., 2010) to Italian. The seven items (e.g. «I feel I am a self-directed learner») — presented a Likert response scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. See Table A1 in Appendix 1 for the complete set of items with means and standard deviation.

We used five items adapted by Caricati et al. (2016) from Berntson and Marklund (2007) to measure perceived employability. The items (e.g. «I know organisations/companies where I could get work») presented a 5-point Likert scale ranging from 1 = *strongly disagree* to 5 = *strongly agree*. Internal consistency was good (Cronbach's α = .83).

Data Analyses

We used CFA with the AMOS software to investigate the Italian Lifelong Learning Scale (short form) factor structure, testing a single-factor model in line with the original validation study (Kirby et al., 2010). We used the following goodness-of-fit indices: the ratio between Chi-square and degrees of freedom (χ^2/df), comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA) and standardised root mean squared residual (SRMR). Values < 3 for χ^2/df, > .90 for the CFI and TLI, and < .08 for RMSEA and

SRMR are considered adequate to mark an acceptable fit (Hu & Bentler, 1999). We also performed a correlational analysis to analyse the external validity of the lifelong learning scale, testing its relationships with perceived employability.

Results

The hypothesised model fit well with the data (χ^2/df = 1.62; CFI = .95; TLI = .92; RMSEA = .07; SRMR = .06). Figure 1 shows the models with the standardised factor loadings of each item onto their respective dimensions (ranging from .38 to .64). Regarding internal consistency, we found a good Cronbach's α coefficient, namely .75. Moreover, the correlational analysis showed that the *Lifelong Learning Scale* was positively associated with perceived employability (r = .32**).

Figure 1
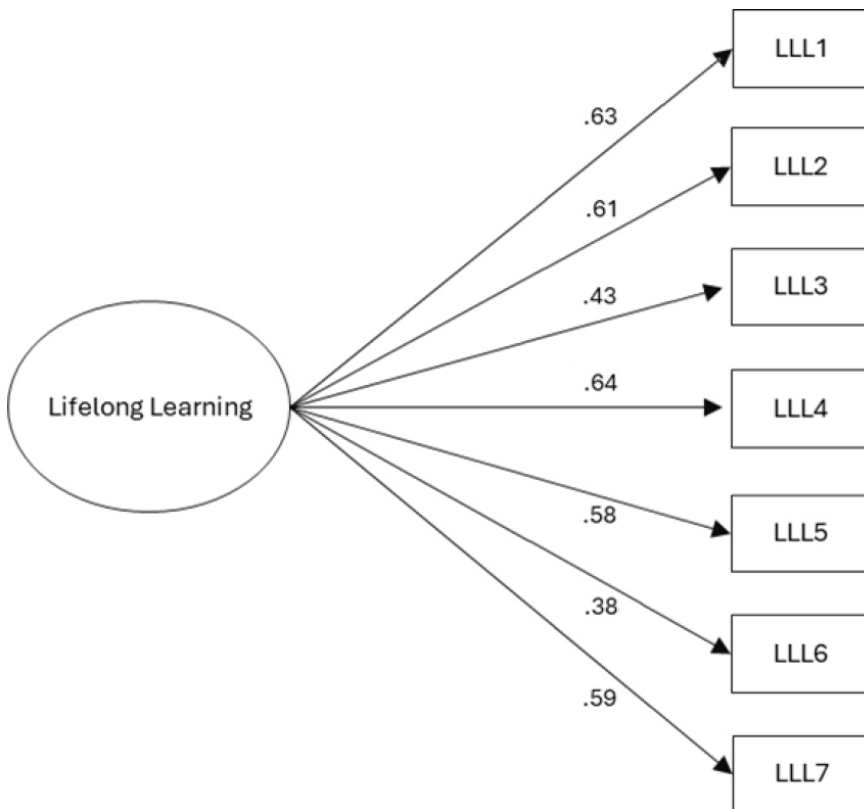
Note. N = 124. All the factor loadings were significant at *p-level* < .001.
CFA standardised loadings for the *Lifelong Learning Scale* (short form).

Discussion

This study proposed an Italian adaptation and initial validation of the Lifelong Learning Scale initially developed by Kirby et al. (2010) which, to date, is missing. Our exploration pertained to the factorial structure of the scale and its internal consistency (i.e. internal validity) and the relationship of the scale under study with variables that are shown to be connected to it, such as proactive skill development and perceived employability (i.e., external validity; Grimm & Widaman, 2012). Our results aligned with the structure found by the original validation study, confirming the existence of a unidimensional construct (Kirby et al., 2010). Also, we provided evidence for the external validity of the scale, given its positive and significant relationship with perceived employability. This expanded examination could provide valuable insights into the scale's robustness and applicability across varied contexts. The study focuses on testing the adapted measure within the hospitality industry. Still, we advocate for further investigation to evaluate its psychometric properties across diverse worker cohorts and explore this variable's diverse functions. For instance, a lifelong learning approach may support young people's employability and facilitate their work transition (Clarke, 2018). In addition, future studies may test the scale's robustness with a more heterogeneous sample in terms of gender, given the large prominence of women in this study. Also, future studies may further investigate the external validity of these scales within Italian contexts by testing their relationship with «green» competencies or performance potential within AI-led organisational processes.

To summarise, applying this scale can assist researchers and employees in navigating the complex interplay among individual, organisational, and environmental factors. The validated instrument can facilitate future research efforts and inform the development of tailored interventions and policies to promote lifelong learning within Italian organisations. By understanding the factors influencing this construct and implementing targeted strategies, we can foster personal and professional growth, benefiting individuals and society.

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APPENDIX 1

Table A1

Items of the Italian version of the *Lifelong Learning Scale* (short form) and scale with mean values and standard deviations.

Variable	Item	Mean	SD
Lifelong Learning	*En. I can deal with the unexpected and solve problems as they arise* It. So gestire l'imprevisto e risolvere i problemi quando si presentano.	4.37	.67
	En. I am able to impose meaning upon what others see as disorder It. Sono in grado di dare un significato a ciò che gli altri considerebbero come disordine.	3.99	.82
	En. I feel I am a self-directed learner It. Penso di essere in grado di gestire autonomamente il mio apprendimento.	3.86	.92
	En. I love learning for its own sake It. Amo imparare per il piacere stesso di farlo.	4.41	.67
	En. I try to relate academic learning to practical issues It. Cerco di collegare l'apprendimento scolastico o accademico con questioni pratiche.	4.16	.80
	En. When I approach new material, I try to relate it to what I already know It. Quando mi approccio a qualcosa di nuovo, cerco di collegarlo a qualcosa che già so.	4.12	.81
	En. It is my responsibility to make sense of what I learn at school It. E' una mia responsabilità di dare significato a quello che imparo al lavoro.	4.26	.66

Note. N = 124; En. = English Original Version; It. = Italian Translation/Adaptation; SD = Standard Deviation.