

# Psychosocial Interventions for Dyslexic Adults

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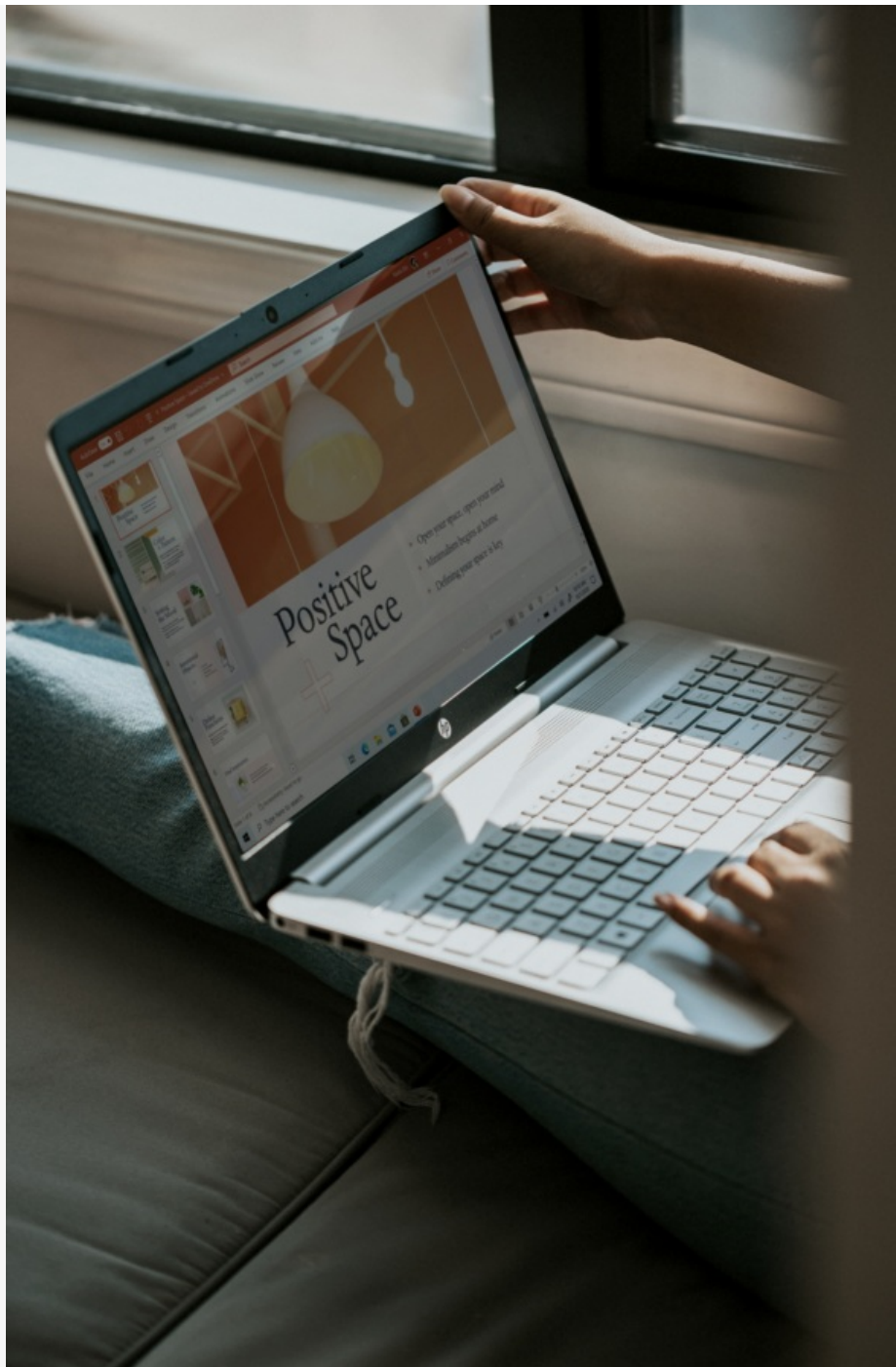
## Definition

Enabling dyslexic adults' participation in the work environment is vital to unleashing their potential and essential to make the workplace more inclusive. This can be supported through psychosocial interventions that target a set of positive self-evaluations commonly linked to resiliency and an individual's sense of ability to control and impact the environment in a successful manner, including coping strategies and self-management. A systematic review has been carried out to map and integrate the understanding of interventions in this field. It reveals that interventions can be useful in enhancing psychological resources among dyslexic adults. Still, it also highlights the critical gap in this literature, where knowledge in this field remains mostly based on common sense rather than on evidence from research. Given the high incidence of dyslexia, its health consequences and high financial costs, this is particularly problematic and emphasizes the need for research designs to evaluate interventions' effectiveness on the improvement of psychological resources and employment opportunities. More intervention studies are needed to understand the effects of initiatives on dyslexic adults' psychological resources and well-being, employing validated and reliable scales for outcome assessment.

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## 1. Introduction

In the European Employment Strategy for more growth and jobs, higher employability is seen as a precondition for achieving increased employment rates, whereby employability refers to the combination of factors enabling individuals to progress towards or enter into employment, stay in employment, and progress during their careers <sup>[1]</sup>. To increase employability, the EU identified a set of actions focusing on improving the quality and relevance of training, making skills more visible and comparable, and improving understanding of skills demands to enable people to make better career choices, find good quality jobs and improve their life chances <sup>[2]</sup>. Understanding employability as a set of actions to make skills more visible and comparable becomes important especially in the context of learning disabilities, particularly dyslexia, often referred to as a hidden disability as its characteristics are not always evident to the untrained eye <sup>[3]</sup>. Indeed, dyslexic adults may lack the psychosocial resources needed to translate their soft skills effectively in the work environment.



While to date dyslexia has been defined as difficulties in accuracy or fluency of reading, later awareness has raised towards the recognition that it typically encompasses more problems than those related to decoding and spelling words, which manifest across the lifespan and stem for a slower acquisition of literacy skills <sup>[4][5]</sup>. Accordingly, scholars proposed a definition of developmental dyslexia in terms of inefficiency in working memory, the information processing system fundamental to learning and performance in conventional educational and work settings <sup>[4]</sup>. Thus, dyslexia has a particular impact not only on verbal and written communication but also on organization, time management, planning and adaptation to change <sup>[4]</sup>, which make a case for the urge to frame the challenges of employability interventions for dyslexic adults. Evidence shows that deficits in underlying cognitive processes persist well into adulthood <sup>[6]</sup>, which is likely to negatively affect an individual's adaptability and the personal factors that are key in defining one's employability <sup>[7][8]</sup>. If coupled with estimates that between 5 and 10% of the population experience dyslexia, which equates to around 700 million people worldwide <sup>[9][10]</sup>, the priority of shedding light on how to sustain employability skills effectively among dyslexic adults becomes clear.

In this paper, we will focus on the available empirical evidence to define the effectiveness of interventions aiming to support and enhance the personal resources of dyslexic adults, with the final aim of enhancing their opportunities of getting a job, keeping it, and progressing in their career, i.e., their employability. In doing so, our goal is to map the employability landscape for dyslexic adults and identify possible gaps in the literature,

so as to inform both future research and the design of effective policies and intervention initiatives.

### **1.1. Beyond Literacy Skills: Psychosocial Facets of Dyslexia**

While systematic evidence on the nature of dyslexia in the adult population is still scarce, an agreement exists that problems experienced by dyslexic people extend beyond literacy skills to include planning, low levels of personal resources such as self-efficacy, self-regulation, and coping difficulties <sup>[4]</sup> (p. 10). Specifically, personal resources refer to positive self-evaluations commonly linked to resiliency and an individual's sense of ability to control and impact the environment in a successful manner <sup>[11]</sup>.

According to the working memory model, dyslexia is characterized by weakness with low order processing related to remembering words, letters, and numbers, which leads to disruption in self-regulating and other higher-level processing when demands on speech and language are high <sup>[12]</sup>. In turn, undermined executive functions, e.g., in terms of organization, self-regulation and planning, affect self-image and self-awareness <sup>[13]</sup>, and expose the individual to the risk of lack of confidence, low self-esteem, and anxiety <sup>[14][15][16][17]</sup>. In the long term, such a process is likely to result in persistent low levels of personal resources among dyslexic adults which, if not addressed, is likely to impact one's professional and private life domains negatively.

Addressing such psychosocial facets of dyslexia is particularly needed to enable dyslexic adults' participation in the work environment and to allow them to thrive in it. While dyslexic people can develop personal coping strategies to face the demands of their present contexts <sup>[15][18]</sup>, current work environments are dynamic and require individuals to be able to adapt and self-manage their job characteristics quickly and, accordingly, their coping strategies <sup>[19][20]</sup>. However, confronting ever-changing job demands and learning how to manage them, specifically require those skills that are most impacted by working memory deficits that are typical of dyslexia <sup>[21]</sup>. Accordingly, the work experience can be disruptive, particularly if dyslexic adults do not have the resources and the knowledge needed to face such amplified demands proactively. Indeed, evidence from research shows that adults with learning disabilities report lower employment rates, earnings, and are employed in lower-skill positions compared to their counterparts without disabilities <sup>[22][23]</sup>.

On the other side, research highlights that the provision of appropriate accommodation or development of compensatory strategies can increase the likelihood of successful employment for dyslexic adults <sup>[24,25]</sup>. Specifically, previous research pinpointed the role of psychosocial resources, i.e., self-awareness and self-regulation, sense of personal control, goal setting, person-environment fit, and positive cognitive reframing of dyslexia, as key success factors allowing successful life experiences among dyslexic adults <sup>[4][24][25][26][27][28]</sup>.

### **1.2. Enabling Agency at Work: Interventions to Enhance Psychosocial Resources among Dyslexic Adults**

Overall, there is some agreement that initiatives designed to assist dyslexic people in the development of their personal resources and self-management strategies can be beneficial to successful adjustment in the workplace and other transitions during adulthood <sup>[3][4]</sup>. Improving efficient functioning in everyday life tasks has been argued as the major focus in adult interventions, where interventions should be designed to remediate the psychological consequences that living with dyslexia has caused <sup>[29]</sup>. Moreover, research in work and organizational psychology has to date provided evidence on the role of intervention programs to help people deal with stressful or demanding work situations. For example, evidence from research shows that interventions can be effective to sustain employability, career competencies <sup>[30]</sup> and proactivity at work <sup>[31]</sup>. In addition, research shows that different sets of personal resources (e.g., self-efficacy, hope, resiliency, self-confidence, problem-solving) are malleable and can be developed through short training interventions <sup>[32][33][34]</sup>.

Yet, surprisingly, there seems to be a dearth of research on the effectiveness of interventions to improve such psychosocial resources among dyslexic adults, by which a person's strengths can be reinforced to support impaired cognitive areas <sup>[29]</sup>. Indeed, agreement on the positive role of interventions seems to be informed mainly by common sense and professional judgments rather than on evidence from evaluation studies <sup>[35]</sup>. However, deepening understanding on whether and how interventions can be effective in

supporting dyslexic adults' employability via improved adjustment to the workplace and higher personal resources is crucial to inform effective and efficient policy design and intervention initiatives.

### 1.3. The Present Study

This paper aims to review evidence on interventions to support psychological resources among dyslexic adults. In doing so, we aim to (1) map evidence on interventions to support dyslexic adults' psychological resources and assess their quality; (2) investigate the characteristics of such interventions with regard to (i) duration and intensity, (ii) group size, (iii) type and topics, (iv) personnel administering the interventions, (v) materials, methods, and assignments; (3) ascertain intervention effectiveness in enhancing (i) psychological resources and (ii) employment status. Finally, based on results from the available evidence, we identify key implications for both researchers and practitioners in the design and evaluation of interventions that are key for employability enhancement among dyslexic adults.

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## Keywords

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Dyslexia;Dyslexic adults;Inclusion;Diversity;Psychological resources;Psychosocial interventions;Positive psychology;Employability;Systematic review;Workplace

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