

Scales of meaning and purpose in life among students: descriptive analysis of the applications of the PIL and MLQ

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Estudio de investigación de escalas sobre el sentido de la vida y su aplicación en contextos educativos
Área o categoría del conocimiento: Educación

Abstract: The aim of this article is to analyse, from a descriptive and systematic perspective, the empirical application of the Purpose in Life Test (PIL) and the Meaning in Life Questionnaire (MLQ) among students. Methodologically, a descriptive-bibliometric systematic review was conducted using the SCOPUS database, adhering to the PRISMA guidelines and restricting the search exclusively to scientific articles. Analysis of the 796 selected records, out of an initial total of 816, highlights the dominance of the PIL and the MLQ over other instruments, revealing a sustained increase in scientific output over the last two decades and growing application in educational and healthcare contexts, focused primarily on university students. In conclusion, this study analytically systematises the existing literature, providing a solid descriptive basis to guide future research on the assessment of the construct 'sense of life' in the academic sphere.

Keyword: Meaning of life

Introduction

In recent decades, educational research has shifted from models that focused almost exclusively on academic performance and the acquisition of instrumental skills to perspectives that view the learner as a whole person. The growing body of empirical evidence emphasising the interdependence between learning, psychological well-being, the construction of personal identity and life orientation (Eccles & Roeser, 2011; Benner et al., 2008) is what drives this paradigm shift.

From the perspective of educational and developmental psychology, several studies have demonstrated that psychosocial factors such as meaning in life, life purpose, self-efficacy, a sense of belonging and subjective well-being have a significant impact on motivation to study, perseverance in studies and adaptation at school and university level (Ryan & Deci, 2017; Seligman et al., 2009). In this context, the student is no longer seen as a mere recipient of content but is perceived as someone in the process of forming their identity, who's personal and life development directly impacts their educational journey.

International organisations have also supported this conceptual shift. UNESCO has emphasised the importance of education systems explicitly incorporating the socio-emotional and existential dimensions of human development, particularly among young people and adolescents, in an environment characterised by social instability, weak social ties and a rise in mental health issues (UNESCO, 2021; UNESCO, 2023). Similarly, the OECD has demonstrated that a sense of belonging at school and psychological well-being are essential elements for deep and lasting learning, beyond standardised outcomes (OECD, 2017; OECD, 2019).

From the perspective of the philosophy of education, this shift has been understood as a re-evaluation of the question regarding the meaning and educational purpose of education. According to authors such as Nussbaum (2010) or Biesta (2010), education

cannot be limited to mere technical qualifications but must include processes of subjectivation and life orientation. In this vein, including constructs such as the meaning and purpose of life in educational research is a response to a genuine concern to understand how students give meaning to their academic experience and their life project in a broad sense (De Ruyter & Schinkel, 2022).

In summary, these contributions support the view that the shift towards a holistic understanding of learners is not merely a passing trend, but a paradigm shift firmly underpinned by empirical evidence, theoretical developments and institutional policies at a global level.

Psychology has sought to operationalise this intangible construct since the mid-20th century; as Yalom (1980) had already noted, robust and profound approaches to existential issues began to emerge between the 1950s and 1980s. Consequently, the range of tools and scales developed is extensive: ranging from traditional instruments such as the *Purpose in Life Test* (Crumbaugh & Maholick, 1964) and the *Life Regard Index* (Battista & Almond, 1973), to more modern tools such as the *Meaning in Life Questionnaire* (Steger et al., 2006) or the *Meaningful Life Measure* (Morgan & Farsides, 2009). Despite this variety of instruments, the scientific literature demonstrates that there is a clear and indisputable dominance of two tools that have defined the research canon: the MLQ and the PIL. Understanding their nuances is essential for properly analysing the data within the student population.

The *Purpose in Life Test* (PIL) represents the classical tradition. Originating within Viktor Frankl's logotherapy, this instrument was a pioneer in attempting to quantify 'noogenic neurosis' or existential emptiness. The PIL focuses on the general assessment of perceived meaning and life motivation. Its items, whilst robust, tend to conflate the cognitive perception of meaning with affective components (such as enthusiasm or boredom with life). Among students, the PIL is a reliable tool for identifying states of profound demotivation or risk of dropping out, as it captures an overall picture of 'existential health'. However, its unidimensional structure has been criticised for failing to distinguish sufficiently between purpose (goals) and meaning (coherence).

From the perspective of psychometric robustness, the scale has consistently demonstrated high reliability coefficients, with Cronbach's alpha values typically exceeding .85 in various cross-cultural validations, although its factor structure remains the subject of lively academic debate. Whilst the original authors posited a unidimensional nature, various more recent confirmatory factor analyses suggest the existence of a latent multidimensional structure, which often breaks the construct down into distinct factors such as 'life satisfaction' and 'life goals'. Research such as that by Kruglanski et al. (2022) posits that the search for meaning, in its personal, social and transcendent dimensions, constitutes an intrinsic motivation that is dynamically modulated in response to significant life events, being activated both in the face of adversity and upon the attainment of achievements. This factorial complexity does not diminish its validity, but rather underscores the richness of the construct of meaning in life, demonstrating that the PIL remains, after decades of use, the gold standard for assessing the existential dimension in clinical and health psychology.

On the other hand, the *Meaning in Life Questionnaire* (MLQ) developed by Steger et al. (2006) draws on Positive Psychology to address these conceptual limitations. Its major contribution lies in the factor differentiation of two distinct yet complementary processes: on the one hand, the presence of Meaning (MLQ-P), that is, the extent to which a person feels that their life already has meaning. On the other hand, the search for Meaning (MLQ-S), that is, the extent to which a person is actively seeking meaning. It can

therefore be argued that the MLQ offers a higher ‘resolution’ for understanding people’s developmental processes, distinguishing the anguish of emptiness from healthy vocational exploration. This questionnaire comprises a total of 10 items to be rated on a 7-point Likert scale, where items 1, 4, 5, 6 and 9 correspond to the MLQ-P factors and items 2, 3, 7, 8 and 10 to the MLQ-S factors.

Psychometrically, the instrument has demonstrated remarkable robustness, consistently showing a stable two-factor structure across diverse cultural contexts, ranging from Western university populations to clinical samples in Asia and Europe (Naghiyae, Bahmani, & Asgari, 2020). Internal consistency coefficients are generally robust (with Cronbach’s alphas frequently ranging between .80 and .90 for both subscales), and, crucially, the MLQ has demonstrated superior discrimination from social desirability, a historical weakness of previous measures of meaning. The low or non-existent correlation often observed between the Presence and Search subscales empirically confirms that making sense of life and seeking meaning are not extremes of the same continuum, but distinct psychological states requiring differentiated therapeutic approaches.

Table 1. General characteristics of the PIL and MLQ scales (in chronological order)					
Scale	Acronym	Author(s)	Year	Number of items	Dimensions
Purpose in Life Test	PIL	Crumbaugh & Maholick	1964	20	Life's purpose, existential meaning
Meaning if Life Questionnaire	MLQ	Steger et al.	2006	10	The presence of meaning, the search for meaning

The concept of a sense of purpose has evolved from a philosophical conjecture to become a fundamental variable in contemporary clinical and educational psychology, proving to be a powerful resource for health and a strong predictor of psychological well-being, school retention and academic achievement among student groups. In this context, there has been an increase in measurement instruments designed to empirically operationalise the ‘meaning of life’ (Alsaadi et al. 2025). The Purpose in Life (PIL) scale and the Meaning in Life Questionnaire (MLQ) are the most common psychometric tools. These enable the measurement of both the extent of purpose and the dynamics involved in its pursuit.

However, this widespread use has led to a vast body of research that is often fragmented; this makes it difficult to gain a clear understanding of how, where, and according to what methodological criteria these tools are being used in the field of education. Although there is a wealth of individual empirical studies, there is a lack of substantial meta-scientific analysis to systematise the accumulated literature. This makes it difficult to identify biases, emerging trends and gaps in the study of students’ sense of meaning. This is one of the key findings highlighted by Brandstätter et al. (2012), who identified a total of 59 nomothetic and ideographic instruments.

With the aim of mapping this scientific field and organising the existing evidence in high-impact databases, the following research question is formulated:

What are the bibliometric characteristics, the evolution over time, and the qualities of the scientific output indexed in the Scopus database regarding the application of the PIL and MLQ scales in student populations?

Based on this context and research question, the present article aims to provide a descriptive analysis of the empirical application of the PIL and MLQ in student

populations, through a bibliometric review based on records indexed in Scopus, with the aim of quantifying the impact and volume of publications, as well as identifying their main uses within the educational context. To carry out this analysis, the methodology employed, the results obtained, and the temporal evolution of the publications are described below, concluding with a descriptive summary of the main findings identified.

Objectives

The general objective of this study is to analyze, from a descriptive and systematic perspective, the empirical application of the Purpose in Life Test (PIL) and Meaning in Life Questionnaire (MLQ) scales in student populations. To achieve this aim, the following specific objectives are established:

- To quantify the impact and volume of publications indexed in the Scopus database that utilize both instruments.
- To identify the primary uses and application contexts of these scales within educational and healthcare settings.
- To describe the evolution over time of scientific output related to the construct of "sense of life" in the academic sphere over recent decades.
- To systematize the existing literature in order to provide a solid descriptive foundation to guide future research on existential assessment among students.

Method

The methodology of the analysis, based on the design and record selection process, is outlined below.

Search design and strategy

A descriptive-bibliometric systematic review was conducted in accordance with the PRISMA guidelines (Moher et al., 2009; Liberati et al., 2009 & Page et al., 2021), which are widely used in literature reviews within the social and educational sciences. The search was carried out in the SCOPUS database, restricting the results to scientific articles (DOCTYPE = ar). Reviews, conference proceedings, book chapters and other formats were excluded. The following term combinations were used:

PIL

TITLE-ABS-KEY ("Purpose in life" OR "PIL") AND
TITLE-ABS-KEY("students" OR "college" OR "university" OR "childhood")

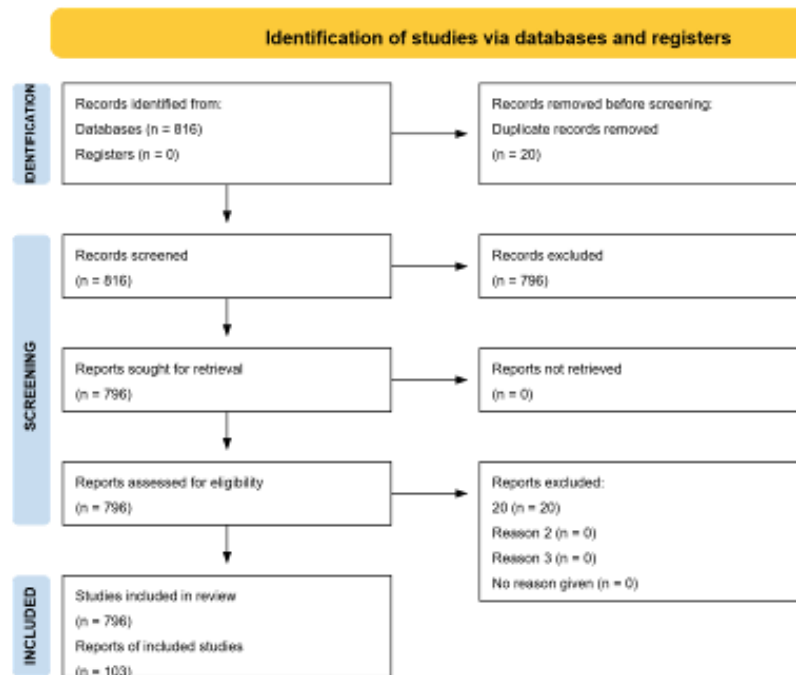
MLQ

TITLE-ABS-KEY("Meaning in life questionnaire" OR "MLQ") AND
TITLE-ABS-KEY("students" OR "college" OR "university" OR "childhood")

PRISMA selection process and structure

The records were exported in .csv format for processing. Titles and abstracts were then reviewed to confirm that the scales had been effectively applied to the student population. Where necessary, the full text was consulted. The identification, screening and selection process is illustrated in Figure 1. Of the total of 816 records, 20 did not apply the scales, as they consisted of reviews, analyses or arguments relating to the applicability of both scales, without any empirical application of them in any population; these were therefore excluded (total = 20 records), leaving a total of 796 records that met the inclusion criteria.

Figure 1.
PRISMA diagram of the study selection process (PIL and MLQ).



Results

With the aim of identifying the types of student population and the fields of study in which the use of each scale has been most prevalent, we first examined all the records retrieved for the MLQ and the PIL. The analysis was structured around three key areas: the stated academic discipline, the institutional context of application, and the nature of the participating sample.

For this categorisation, it is necessary to specify that the educational field includes studies conducted in university, school and general education settings, regardless of the qualification being pursued, provided that the focus is on the educational process itself. The health sector, for its part, specifically encompasses studies carried out with students or experts undergoing training in the health sciences (medicine, clinical psychology, nursing), whereas the 'other fields' category includes research in organisational, religious or military settings and non-formal educational contexts, where the educational variable is circumstantial.

To determine which areas of knowledge and which types of student population have been most frequently assessed by each scale, an analysis was carried out of all the records obtained for the PIL and the MLQ. The analysis was organised around three key aspects: the institutional context of implementation, the stated academic discipline, and the characteristics of the participants in the sample.

For this categorisation, it is necessary to clarify that the field of education comprises studies conducted in general education, university and school settings, regardless of the degree being pursued, provided that the emphasis is on the educational process itself. As for the 'other fields' category, this encompasses studies conducted in non-formal educational settings, as well as in organisational, religious or military contexts. In contrast, the health sector includes research carried out with students or professionals who are at various stages of training in the health sciences (medicine, nursing, clinical psychology).

The decision to separate the healthcare sector from general education is not arbitrary but is based on evidence that health education involves specific psychosocial stressors. According to the landmark meta-analysis by Rotenstein et al. (2016), students in medicine and related fields have much higher prevalence rates of depression and anxiety than students in general and then those studying other subjects. As a sense of purpose serves as a vital protective factor against this academic burnout and compassion fatigue, it is methodologically relevant to examine this subgroup separately to determine whether, in these highly emotionally demanding contexts, more clinical tools, such as the PIL, predominate.

Use by type of student population

Based on an analysis of the metadata from the extracted data, the distribution by population type was identified.

Table 2. Application of the scales by population type				
Scale	University students	Secondary school	Teenagers (general)	Total
PIL	298	171	77	546
MLQ	162	54	34	250

Table 3. Distribution of the use of scales by field of knowledge			
Scale	Education	Healthcare	Other sectors
PIL	39%	41%	20%
MLQ	44%	32%	24%

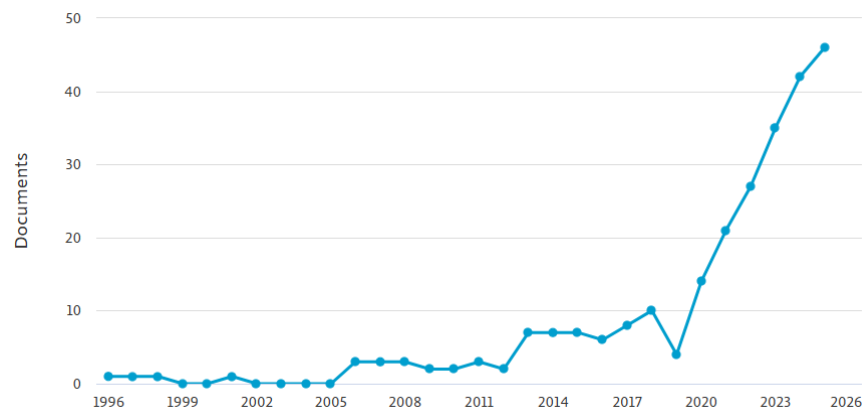
These figures show that both scales are clearly geared towards educational and training contexts, reflecting a significant overall volume of use; however, the PIL has historically been more prevalent in health-related studies, consistent with its date of creation, origin and traditional use in health research, particularly in the fields of mental health and existential well-being.

Trend in publications over time

Longitudinal analysis shows a clear upward trend in the use of both scales in student contexts.

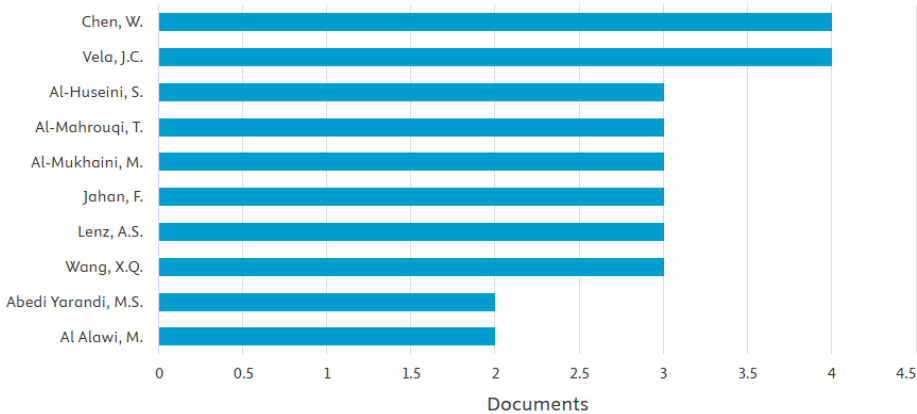
In the case of the MLQ, the first recorded use among a student population dates back to the mid-1990s, with sustained growth from 2010 onwards and a peak in publications in 2025 (46 articles). These applications prior to 2006, the year the standardised scale was created by Michael F. Steger, Patricia Frazier, Shigehiro Oishi and Matthew Kaler, are related to applications of other non-standardised instruments whose initial purpose was the same, but which did not possess the same characteristics or normative specifications as the MLQ.

Figure 2.
Annual trend in publications using MLQ



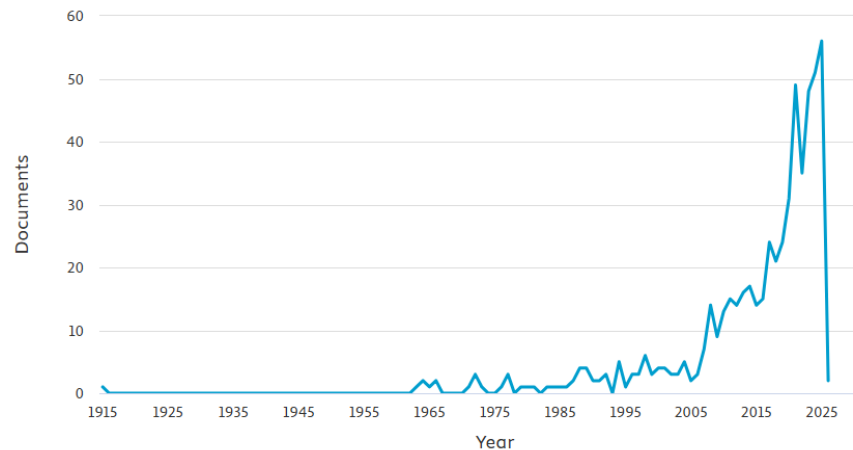
As for the authors with the highest number of contributions, the list of the most prolific is shown below:

Table 4.
List of authors with the highest number of publications on the use of the MLQ in educational contexts



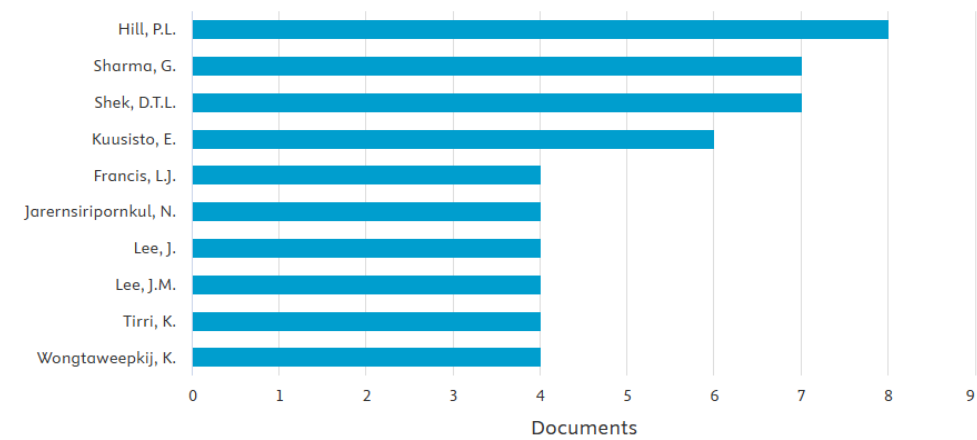
For its part, the PIL has a longer history, with continuous records dating back to the 1960s. Far from showing a decline, the data reveal a gradual increase in usage, peaking in 2025 as well (56 articles).

Figure 3.
Annual trend in publications with PIL



Similarly, the authors with the highest number of publications within this range are as follows:

Table 5.
List of authors with the highest number of publications on the use of the PIL in educational contexts



Discussion

The results of this study confirm that the Purpose in Life Test (PIL) and the Meaning in Life Questionnaire (MLQ) are the dominant instruments in empirical research on the meaning and purpose of life among student populations. This dominance has not only remained stable over time but has also been significantly reinforced over the last two decades. This period coincides with a paradigm shift in the educational sciences, where there has been an exponential growth in interest in integrating and measuring psychosocial variables—such as well-being, resilience and purpose—as critical predictors of academic success and student adjustment (Campos et al., 2024; Tindle et al., 2022). Diachronic analysis reveals a robust upward trend in the application of both scales, with the case of the MLQ being particularly telling since its first documented application in a student population in the mid-1990s, its use experienced sustained growth from 2010 onwards, reaching an all-time high in publications in 2025 (46 articles). This development is not a methodological artefact, but rather an indicator of scientific relevance that validates the usefulness of these instruments as essential resources for identifying and assessing deep psychological constructs in the field of education. Indeed, since its rise in the second decade of this century, there has been an intensification of research seeking to expand upon the dimensions originally described in the MLQ (Li et al., 2021).

The international spread of these tools is a phenomenon worthy of note. Both the PIL and the MLQ have demonstrated a high degree of cross-cultural versatility, with validated adaptations and applications in highly diverse geographical and cultural contexts, ranging from North America and Europe to Asia and Latin America (Steger et al., 2008; Wang & Li, 2021). This widespread global acceptance suggests that, beyond linguistic or cultural particularities, the core constructs they assess, the presence of a life purpose (PIL) and the search for and presence of meaning (MLQ), resonate as universal dimensions of human experience, particularly relevant during the formative stages of adolescence and emerging adulthood.

The conceptual distinction inherent in the MLQ, which draws an analytical distinction between the presence of meaning and the search for meaning (Steger et al., 2006), has been a key driver of its recent popularity. This two-dimensionality allows researchers to dissect students' life experiences with greater precision: they capture not only whether

students feel their lives have meaning (presence), but also their active role in constructing that meaning (search). It is even possible to identify how this scale serves as a predictor for other dimensions linked to the very concept of meaning in life (Martela & Steger, 2023). This capability has enriched research, allowing, for example, an exploration of how high search sometimes coexists with low presence in students in transition, thus offering a more nuanced personal picture that is useful for the design of educational and psychoeducational support interventions. Fundamentally, the standardised application of these scales allows these dimensions to be correlated with variables of critical educational interest, such as academic performance, university retention, psychosocial adjustment and intention to drop out, providing a map of empirical relationships that informs evidence-based educational practices (Shin & Steger, 2014).

For its part, the PIL has a long and well-established history, with particularly deep roots in research related to healthcare, psychological support and academia. Its extensive track record of applications can be attributed to two main factors. Firstly, its pioneering chronology: developed by Crumbaugh and Maholick in 1964, it predates the MLQ (2006) by decades, thus accumulating a more extensive body of research. Secondly, and more importantly from a theoretical perspective, its focus on 'purpose' as the core of life meaning (Damon, Menon & Bronk, 2003). As Martela and Steger (2016) point out in their theoretical framework on the three dimensions of meaning, coherence, purpose and significance, purpose (the sense of having goals and direction in life) consistently emerges as the dimension with the greatest predictive power and association with indicators of well-being, mental health and positive adjustment. In the educational context, where the setting of academic and vocational goals is central, purpose as measured by the PIL emerges as a psychosocial variable of the first order, explaining why it remains a tool of choice for assessing a crucial component of the student's holistic development.

The significance of these scales extends beyond the mere measurement of their nominal constructs. Their systematic implementation provides robust empirical data on essential psychosocial aspects that would otherwise remain abstract concepts (Wong, 2020). They provide measurable data offering an evidence-based view of both the individual and the group, which is essential for informing student support strategies, mentoring programmes and educational policies. However, this instrumental dominance entails a critical responsibility. The literature arising from these scales still features an over-representation of convenience samples drawn from universities located in English-speaking, Western countries with a medium-to-high socioeconomic status. It is therefore essential that the populations under study are diverse. Future studies must focus on implementing and validating these scales across a wider variety of student populations: learners from non-formal or vocational settings, indigenous students, first-generation university students, and those from low socioeconomic backgrounds (George & Park, 2016). Only if we overcome this sampling bias will we be able to state with absolute certainty that the constructs are universal and that the tools measuring them are equitable.

In summary, the steady rise in the use of the PIL and the MLQ is indicative of their ecological validity and practical value in current educational research. Their combined use, which capitalises on the historical depth and purpose-oriented focus of the PIL, alongside the two-dimensional flexibility and dynamism of the MLQ, provides the most comprehensive framework for mapping how students perceive meaning and life purpose. The challenge for the future is to use these powerful tools not only to describe, but also to promote real transformation, by focusing on the development of more relevant educational environments that actively promote purpose and meaning as the foundations of academic and personal success.

Conclusions

Bibliometric analysis suggests an increasing use of both instruments, the PIL and the MLQ, in assessing life meaning among student populations, revealing a pattern of scientific output that has evolved from the sustained historical prevalence of the former towards the more recent exponential growth of the latter. The data confirm the consolidation of a mature field of research, predominantly rooted in educational and healthcare training contexts, where the literature consistently validates the ability of both scales to correlate with health variables and distinguish profiles of psychosocial adjustment. In summary, the systematic evidence establishes that the measurement of meaning in life and purpose among students is no longer an emerging area, but a consolidated empirical domain that offers a solid basis for moving beyond psychometric validation and addressing complex longitudinal designs, making it possible to provide relevant psychosocial data related to aspects specific to the academic sphere.

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