

# Trends and Directions in Life Skills Assessment for Elementary School Students from a Guidance and Counseling Perspective: A Systematic Literature Review

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## Abstract

Life skills education plays a crucial role in supporting students' academic achievement, social-emotional well-being, and adaptive capacity from an early age. However, systematic reviews on valid life skills assessment instruments that are developmentally appropriate for elementary school students from a guidance and counseling perspective remain limited. This study aims to systematically examine the trends and directions in the development of life skills assessment instruments for elementary school students from a guidance and counseling perspective. The method employed was a Systematic Literature Review following the PRISMA 2020 guidelines. Literature searches were conducted across four major databases namely Scopus, Web of Science, ERIC, and PsycINFO, covering articles published between 2010 and 2025, yielding a total of 1,020 records. Through a rigorous process of identification, screening, and eligibility assessment, 90 articles met the inclusion criteria and were analyzed using thematic synthesis techniques. The findings indicate that life skills assessment instruments for elementary school students primarily measure domains of social-interpersonal skills, emotional regulation, self-management, and problem-solving, while aspects related to career awareness and contextual adaptability receive relatively limited attention. Self-report scales and teacher ratings are the most dominant types of instruments, whereas performance-based and digital assessments are still emerging and remain underutilized. Geographically, instrument development is predominantly concentrated in Global North countries, raising concerns regarding cultural relevance and measurement equity. These findings underscore the importance of developing life skills assessment instruments that are developmentally sensitive, culturally responsive, and aligned with the needs of guidance and counseling services in elementary schools.

**Keywords:** Trends and Directions; Assessment; Life Skills; Elementary School; Guidance and Counseling

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## INTRODUCTION

Life skills assessment in elementary education has become a strategic priority in response to the demands of 21st century education, which emphasizes communication skills, problem solving, critical thinking, and social emotional competencies (Alghazo, 2024; Sarwanto et al., 2021; Pan et al., 2025). Life skills are defined as psychosocial abilities that enable individuals to manage daily challenges effectively and adapt to diverse environments, forming a foundation for academic success, personal well being, and future employability (Ghombavani et al., 2012; Kobayashi et al., 2013; Davydova & Sorokin, 2019).

Within the guidance and counseling framework, robust assessment instruments are essential for identifying students individual needs, designing targeted interventions, and evaluating program effectiveness (Kesici, 2008; Kerdnaimongkol, 2025; Hatch et al., 2022). The complexity of modern educational contexts, particularly the acceleration of digital transformation following the pandemic and the growing recognition of cultural diversity, demands a comprehensive understanding of current assessment trends and their implications for professional practice (Jocham & Pohlmann Rother, 2025; Suri et al., 2025; Chang & Kuo, 2025).

Recent systematic reviews reveal significant evolution in life skills assessment approaches, shifting from narrow domain specific measurements toward holistic and multidimensional frameworks (Martinez Yarza et al., 2023; Hvalby et al., 2024). Contemporary instruments increasingly integrate traditional cognitive and social competencies with emerging domains such as digital literacy, career readiness, and metacognitive skills (Pan et al., 2025; Vargas & Castro, 2022; Jocham and Pohlmann Rother, 2025; Wolter & Timler, 2014). This expansion reflects a broader shift in educational philosophy toward preparing students not only for academic achievement but also for adaptive functioning in rapidly changing global contexts (Hafina et al., 2024; Akongo et al., 2025; Buasuwan et al., 2022).

In line with twenty first century competency demands, elementary education no longer focuses solely on academic mastery but also emphasizes the development of critical thinking, communication, emotional regulation, and adaptability (Pan et al., 2025; Vargas & Castro, 2022). In this context, guidance and counseling play a strategic role in ensuring that life skills development is implemented systematically, purposefully, and aligned with students developmental needs (Gysbers & Henderson, 2014; Hatch et al., 2022).

The guidance and counseling profession plays a crucial role in this evolution by ensuring that assessments are developmentally appropriate, culturally responsive, and actionable for intervention design (Kerdnaimongkol, 2025; Erdman & Lampe, 1996; Hatch et al., 2022). Nevertheless, despite the proliferation of available instruments, significant challenges persist regarding psychometric rigor, cultural adaptation, and practical implementation across diverse educational settings (Alavi et al., 2026; Uysal-Bozkir et al., 2013; Gomez Cardona et al., 2023).

Although research on life skills continues to expand, systematic reviews that

specifically map trends in life skills assessment instruments for elementary school students from a guidance and counseling perspective remain limited. Therefore, this study aims to address this gap by examining four key questions regarding the domains and indicators measured in life skills assessment instruments, the types of instruments most frequently used, the distribution of countries and contexts in instrument development, and the challenges and opportunities for developing life skills assessment instruments within guidance and counseling services.

## **METHOD**

### **Design**

This study employed a Systematic Literature Review (SLR) design to synthesize empirical evidence regarding life skills assessment instruments for elementary school students within guidance and counseling contexts. The review protocol was structured to ensure transparency, reproducibility, and methodological rigor in identifying, evaluating, and integrating findings from peer-reviewed literature.

### **Search Strategy**

A comprehensive search was conducted across five major academic databases: Google Scholar, Scopus, Web of Science, ERIC, and PsycINFO. The search strategy combined keywords related to the core concepts of the study, namely: *life skills assessment*, *elementary students*, *primary school*, *assessment instruments*, and *psychometric properties*. The search was limited to publications published between 2010 and 2025 to capture contemporary developments in the field. Additionally, article identification was supported through multiple sources via Consensus to enhance search coverage.

### **Instruments**

Studies were included if they met the following criteria: (1) focused on life skills assessment instruments for elementary or primary school students; (2) reported empirical findings; and (3) provided evidence of validity, reliability, or other psychometric properties relevant to guidance and counseling contexts. Studies were excluded if they were: (1) non-empirical (e.g., theoretical papers, editorials, or commentaries); (2) did not target the elementary school population; or (3) were not aligned with the focus on assessment instruments.

### **Data Collection**

Data were collected through observation, questionnaires, and documentation during the period from October to December 2025. Observation was conducted to obtain preliminary information regarding the school environment and students' social interactions. The questionnaire served as the primary data collection instrument, using a five-point Likert scale to measure empathy, school climate, peer support, and anti-bullying behavior. The questionnaire was administered directly to respondents in classrooms using Google Forms based on the predetermined sample. In addition, documentation was used as supporting data to ensure the validity and completeness of the data collection process.

## Data Analysis

The article identification process yielded a total of 1,020 records obtained from multiple sources. Following the identification stage, 525 records were removed during the initial screening due to duplication and lack of relevance. The remaining 318 articles were assessed for eligibility based on the predefined inclusion and exclusion criteria. After the eligibility assessment, 90 articles were deemed the most relevant and included in the final review. The complete selection process is illustrated in Figure 1.

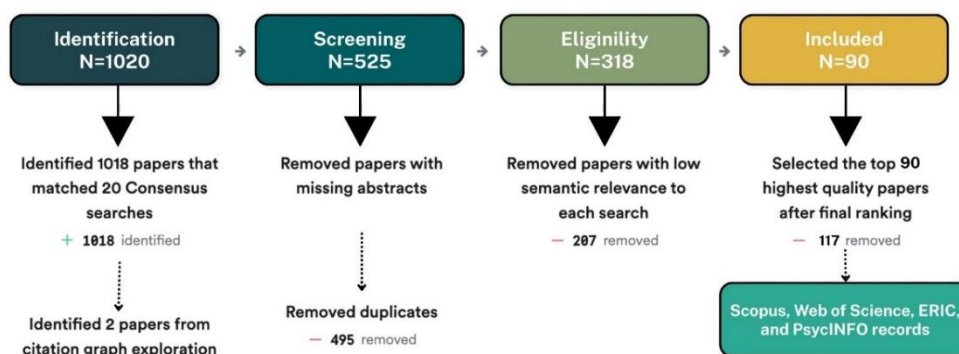


Figure 1. Systematic Literature Review Flow Diagram

All included studies were further analyzed to ensure methodological rigor and relevance to the review objectives. Data extraction focused on study characteristics, instrument types, psychometric properties, and contextual applicability. Thematic synthesis was applied to identify patterns in instrument development, validation approaches, and geographic distribution. Of the 90 included articles, 52 studies (57.8%) focused on primary instrument development, 23 studies (25.6%) examined instrument validation and adaptation, 10 studies (11.1%) addressed cross-cultural validation, and 5 studies (5.6%) focused on psychometric evaluation. The geographic distribution of the studies covered 25 countries, with research predominantly originating from East Asia (24 articles), Europe (22 articles), North America (18 articles), Africa (8 articles), Southeast Asia (7 articles), the Middle East (6 articles), Latin America (3 articles), and Oceania (2 articles).

## RESULT AND DISCUSSION

### Domains and Indicators of Life Skills Assessment

The synthesis of the literature indicates that life skills among elementary school students are conceptualized as a multidimensional construct reflecting children capacity to manage academic, social, and emotional demands within early developmental contexts (Ghombavani et al., 2012; Davydova & Sorokin, 2019; Hvalby et al., 2024). The assessment instruments analyzed in this review generally categorize life skills into several main domains, although variations in terminology, indicators, and depth of measurement are evident across studies (Pan et al., 2025; Hafina et al., 2024).

The cognitive domain is one of the most frequently assessed domains in life skills instruments for elementary school students. It focuses on problem solving

ability, simple decision making, activity planning, and logical thinking in everyday learning situations (Erawan, 2010; Davydova & Sorokin, 2019; Pan et al., 2025). Indicators in this domain are typically designed to assess how students understand problems, select alternative actions, and evaluate the consequences of decisions in academic and social contexts (Ghombavani et al., 2012; Hvalby et al., 2024). From a developmental perspective, cognitive skill assessment at the elementary level tends to be operational and contextual, aligning with children concrete thinking abilities at this stage (Davydova & Sorokin, 2019; Kase & Endo, 2023). However, the literature shows that most instruments still frame the cognitive domain as an extension of academic skills, resulting in limited measurement of adaptive cognitive aspects such as self reflection, value evaluation, and experience based decision making (Sarwanto et al., 2021; Hvalby et al., 2024). Within the guidance and counseling context, this limitation reduces the availability of assessment data needed to design holistic guidance services that go beyond academic remediation (Gysbers & Henderson, 2014; Hatch et al., 2022). Therefore, the literature emphasizes the need to redefine cognitive indicators that are more aligned with the goals of life skills development in guidance and counseling services (Pan et al., 2025; Akongo et al., 2025).

The social and interpersonal domain is the most dominant domain in life skills assessment instruments for elementary school students, reflecting the emphasis of basic education on prosocial behavior and adaptive social interaction (Kobayashi et al., 2013; Hafina et al., 2024; Casale et al., 2023). Common indicators include effective communication, empathy, cooperation, rule compliance, and the ability to resolve simple conflicts with peers (Didaskalou et al., 2022; Pan et al., 2025). The dominance of the social domain is also influenced by the ease of observing social behavior in school settings, which leads to frequent use of teacher rated instruments or structured observation methods (Casale et al., 2023; Himmelmeier et al., 2025). From a guidance and counseling perspective, social skills assessment serves a strategic function for early detection of social adjustment difficulties, behavioral problems, and risks of social exclusion (Hatch et al., 2022; Hartzell et al., 2020). However, the literature also highlights that social skills indicators are strongly shaped by cultural norms and social values, meaning that instruments developed in one cultural context may not be valid when applied in another (Kohrt et al., 2011). Cultural insensitivity in social skills measurement may lead to assessment bias that contributes to stigmatization or misidentification of student needs within guidance and counseling services (Abhilashi et al., 2025; Akongo et al., 2025).

The domain of emotional regulation and self awareness has received increasing attention in life skills assessment instruments due to its significant role in psychological well being and learning readiness among elementary school students (Eschenbeck et al., 2006; Fernandes et al., 2024; Hvalby et al., 2024). Indicators in this domain include the ability to recognize personal emotions, manage negative emotions, control impulses, and adjust emotional responses to social and academic situations (Ghombavani et al., 2012; Davydova & Sorokin, 2019). Despite its importance, measuring emotional regulation in elementary aged children presents substantial methodological challenges, particularly due to limitations in children reflective and verbal abilities (Beitchman & Corradini, 1988; Epkins & Meyers, 1994). As a result, many instruments rely heavily on teacher or parent reports, while the validity of self report measures in this domain is often questioned (Casale et al., 2023; Kase & Endo, 2023). From a guidance and counseling perspective, these

measurement limitations may hinder the development of preventive services and early interventions based on students actual emotional needs (Kesici, 2008; Hatch et al., 2022). Accordingly, the literature recommends the development of more concrete and behavior based emotional indicators and the use of multi informant approaches to improve assessment accuracy (Pan et al., 2025; Abhilashi et al., 2025).

The self management domain includes indicators such as independence, self discipline, time management, responsibility, and persistence in task completion, which are increasingly recognized as essential components of life skills for elementary school students (Ghombavani et al., 2012; Hvalby et al., 2024; Hafina et al., 2024). Instruments within this domain are commonly used to identify learning habits and students readiness to meet increasing academic demands (Davydova & Sorokin, 2019; Pan et al., 2025). However, the literature indicates that self management indicators often overlap conceptually with emotional regulation or academic skills, resulting in blurred boundaries between domains (Sarwanto et al., 2021; Hvalby et al., 2024). This conceptual ambiguity may complicate counselors interpretation of assessment results and hinder the determination of appropriate guidance service priorities (Gysbers & Henderson, 2014; Hatch et al., 2022).

Recent literature also identifies the emergence of new domains in the measurement of elementary school students life skills, including early career awareness, digital literacy, resilience, and reflective skills in response to societal and workforce demands of the twenty first century (Wolter & Timler, 2014; Jocham and Pohlmann Rother, 2025; Pan et al., 2025). However, these emerging domains remain rarely integrated in a systematic manner within widely validated assessment instruments (Hvalby et al., 2024; Akongo et al., 2025). The limited measurement of these domains indicates a gap between educational policy aspirations and assessment practices in the field, resulting in guidance and counseling services that are not fully supported by relevant assessment data for long term planning (Sarwanto et al., 2021; Gysbers & Henderson, 2014). The literature consistently emphasizes the need to develop life skills assessment instruments that are adaptive to social change, technological advancement, and the cultural contexts of elementary school students (Pan et al., 2025; Abhilashi et al., 2025).

Overall, trends in life skills measurement for elementary school students reveal a dominance of social and cognitive domains, limited assessment of reflective and adaptive domains, and minimal integration of a guidance and counseling perspective in indicator formulation (Hvalby et al., 2024; Pan et al., 2025). These conditions underscore the need for assessment instruments that are not only psychometrically sound but also pedagogically and counseling meaningful, in order to support preventive, developmental, and data driven guidance and counseling services (Gysbers & Henderson, 2014; Hatch et al., 2022).

### **Types of Life Skills Assessment Instruments**

The literature identifies a wide range of life skills assessment instruments used with elementary school students, each with distinct strengths and limitations (Davydova & Sorokin, 2019; Martinez-Yarza et al., 2023). Self-report questionnaires represent the most commonly used type of instrument due to their ease of administration, efficiency in collecting data from large samples, and capacity to measure students' internal perceptions and attitudes (Ghombavani et al., 2012; Kobayashi et al., 2013; Beitchman & Corradini, 1988). These instruments typically employ Likert-type scales

to assess domains such as self-awareness, coping, decision-making, and social skills, generally demonstrating satisfactory internal consistency.

Observational scales provide an important alternative for assessing students' actual behaviors in naturalistic school settings and are particularly useful for students who experience difficulties in communication or verbalization (Davydova & Sorokin, 2019; Wright & Michael, 1977; Al-Hendawi et al., 2025). Observational approaches allow assessors to capture behavioral manifestations of life skills within authentic contexts, thereby reducing reliance on students' self-reporting abilities (Didaskalou et al., 2022; Casale et al., 2023). Standardized observation systems such as the Classroom Assessment Scoring System and the Individualized Classroom Assessment Scoring System have demonstrated strong reliability in evaluating social interactions, engagement, and classroom behavior (Al-Hendawi et al., 2025; Didaskalou et al., 2022).

Multidimensional instruments that integrate multiple domains and assessment methods have emerged as an important trend in recent developments (Kobayashi et al., 2013; Davydova & Sorokin, 2019). Multi-method approaches that combine self-report, teacher ratings, parent ratings, and direct observation enhance validity by providing a comprehensive perspective on students' competencies (Epkins & Meyers, 1994; Thomas, 1995; Himmelmeier et al., 2025). Data triangulation from multiple sources enables more accurate identification of students' strengths and needs while reducing biases inherent in single-method approaches.

Specialized instruments have been developed for populations with special needs, particularly children with autism and developmental disabilities (Vlachou et al., 2025; Smith & Matson, 2010; Wittevrongel et al., 2022). Instruments such as the Checklist for Life Skills Educational Assessment, the Adaptive Behavior Assessment System–Second Edition, and the Autism Comprehensive Life Skills Assessment–Modified are designed to evaluate daily living, social, and vocational skills while accounting for the unique characteristics of these populations (Vlachou et al., 2025; Wittevrongel et al., 2022). Application-based technologies, such as I-Connect and tablet-based assessments, have been shown to enhance engagement and assessment accuracy for students with communication difficulties through the use of visual illustrations and child-friendly response scales (Fuqua et al., 2025; Villányi et al., 2018).

Performance-based and scenario-based assessments provide authentic measurement of functional abilities through tasks that simulate real-life situations (Mutweleli et al., 2024; Nansubuga et al., 2024). These approaches are particularly valuable in low-resource and cross-cultural contexts because they reduce reliance on literacy skills and enable direct observation of competencies within culturally relevant settings (Mutweleli et al., 2024; Nakabugo et al., 2024). Narrative instruments such as the Life Adaptability Qualitative Assessment complement quantitative measures by capturing qualitative changes in adaptability, self-construction, and meaning-making processes that are difficult to assess using numerical scales (Di Fabio, 2015; Dudek & Cook, 2019).

Innovations in item formats have also emerged in response to the limitations of traditional formats, including the use of open-ended questions, multimodal formats, and digital assessments that enhance validity and student engagement in measuring critical thinking and digital literacy (Sarwanto et al., 2021; Wan & Henly, 2012; Oakley et al., 2020). Digital platforms and serious games offer significant potential for real-

time, objective, and scalable assessment; however, they require further validation and careful consideration of digital literacy and accessibility issues (Cornacchia et al., 2025; Zhidkikh et al., 2023).

### **Countries and Focus of Instrument Development**

The development of life skills assessment instruments is strongly influenced by local contexts, educational policies, resource availability, and prevailing cultural values within each country (Shariff et al., 2024; Kanjee, 2018; Yildirim & Niyomugabo, 2025). The literature indicates that most instruments have been developed and validated in Western or high-income countries, with limited representation from low- and middle-income countries and non-Western contexts (Akongo et al., 2025; Kusi-Mensah et al., 2022; Hvalby et al., 2024). This imbalance raises critical concerns regarding the generalizability and relevance of existing instruments when applied to different cultural contexts without adequate adaptation.

Socioeconomic and cultural factors play a crucial role in shaping the prioritization and manifestation of life skills across regions. In East Africa, instruments have been developed to reflect local values such as communality, self-awareness within collective contexts, and respect for social hierarchies, which differ from the individualistic emphasis of many Western instruments (Akongo et al., 2025; Giacomazzi, 2024; Shariff et al., 2024). Resource constraints in these regions necessitate household-based approaches with broader community participation, as well as assessment methods that are less dependent on formal school infrastructure (Nakabugo et al., 2024; Mutweleli et al., 2024). Comparative studies between Turkey and Rwanda reveal significant differences in preschool children's life skills scores, with Turkish children demonstrating higher scores in social life and decision-making, reflecting differences in educational practices and socioeconomic conditions (Yildirim & Niyomugabo, 2025).

Cultural adaptation of instruments involves a complex, multifaceted process that extends beyond linguistic translation. Effective adaptation includes forward and backward translation, expert review to ensure conceptual equivalence, pilot testing with target populations, and psychometric validation within local contexts (Kohrt et al., 2011; Alavi et al., 2026; Nyongesa et al., 2022; Manohara et al., 2025). Key challenges in cross-cultural validation include conceptual relevance, as some life skills constructs may lack direct equivalents or be interpreted differently across cultures; semantic equivalence to ensure that items retain their intended meaning after translation; and psychometric validation, which requires adequate sample sizes and appropriate analytical methods to establish reliability and validity in new contexts (McHenry et al., 2023; Abhilashi et al., 2025; Stowell et al., 2025).

Effective strategies for assessment in low-resource contexts include collaboration with local communities and training local assessors to enhance cultural acceptability and data quality (Kallam et al., 2018; Nakabugo et al., 2024; Mutweleli et al., 2024). The use of everyday life-based scenarios that reduce reliance on formal literacy and allow assessment in local languages has proven effective (Mutweleli et al., 2024; Nansubuga et al., 2024). Participatory approaches that involve local stakeholders in instrument design and implementation increase contextual relevance and program sustainability (Kabutha Mugo, 2024; Turner et al., 2024). Investment in local capacity development for assessment administration and interpretation ensures long-term sustainability and local ownership of the assessment process (Shariff et al.,



2024; Akongo et al., 2025).

### **Psychometric Characteristics of Instruments**

Reliability and validity are fundamental psychometric characteristics that determine the quality of life skills assessment instruments. Most validated instruments demonstrate good to excellent internal consistency, with Cronbach's alpha coefficients ranging from .71 to .95, indicating item homogeneity in measuring the same construct (Kobayashi et al., 2013; Ghombavani et al., 2012; Arnesen et al., 2018; Ennis et al., 2012). Test–retest reliability also shows strong stability in comprehensively validated instruments, indicating consistent measurement over time when no changes in the assessed competencies are expected (Kobayashi et al., 2013; Seligson et al., 2005; Huebner, 1995).

Construct validity is supported through confirmatory factor analyses demonstrating that instrument factor structures align with underlying theoretical frameworks, with model fit indices such as the Goodness of Fit Index, Comparative Fit Index, and Root Mean Square Error of Approximation meeting established standards (Kobayashi et al., 2013; Ghombavani et al., 2012; Arnesen et al., 2018). Concurrent and predictive validity are demonstrated through correlations with established instruments and associations with important outcomes such as academic achievement, psychological well-being, and social functioning (Ennis et al., 2012; Seligson et al., 2005; Brigman et al., 2015).

The use of advanced psychometric methods, including bifactor models, essential bifactor exploratory–confirmatory factor analysis, and item response theory, has become increasingly common in instrument development and validation (Vahdani et al., 2024; Fuentes et al., 2025; Coşkun et al., 2025). These approaches enable the separation of general and domain-specific variance, providing a more nuanced understanding of the multidimensional structure of life skills and enhancing measurement precision (Pacewicz et al., 2024; Vahdani et al., 2024). Measurement invariance analysis has become a critical component of cross-cultural and cross-group validation, ensuring that instruments measure the same constructs in the same way across different populations (Kase & Endo, 2023; Maddah et al., 2023; Zeng et al., 2018).

Cross-national validation of life skills assessment instruments has yielded variable but generally promising results. Scales such as the Multidimensional Scale of Life Skills and the Life Skills Scale for Adolescents and Adults have demonstrated strong measurement invariance across samples from Japan, China, the United States, and Lebanon, supporting their use in cross-cultural research (Kase & Endo, 2023; Zhu et al., 2023; Abubakar et al., 2016). However, partial invariance is more frequently observed than full invariance, indicating that caution is warranted when interpreting mean differences across cultures and highlighting the need for item-level adaptation to ensure conceptual equivalence (Meuleman, 2012; Valenti & Faraci, 2024).

The consistency of reliability and validity across populations generally shows stable patterns, although some variability emerges depending on contextual factors. Well-developed instruments typically maintain acceptable psychometric properties when used in urban, suburban, and rural populations; however, several studies report greater variability in low-resource settings or highly diverse populations (Pedersen et al., 2001; Porter et al., 2018). This underscores the importance of local

validation even for well-established instruments, rather than assuming automatic cross-context transferability (Uysal-Bozkir et al., 2013; Sanson-Fisher & Perkins, 1998).

Responsiveness to change is an important but often overlooked psychometric characteristic that determines an instrument's ability to detect meaningful changes following interventions. Several instruments, such as the Ansell Casey Life Skills Assessment and the Life Skills Scale for Sport, have demonstrated sensitivity to intervention effects, making them useful for program evaluation (Helfrich et al., 2006; Lim et al., 2019). Nevertheless, many instruments lack robust responsiveness data, limiting their utility for progress monitoring and outcome evaluation (Rosen et al., 2001; Raphael et al., 1999). Affective and behavioral domains remain underrepresented and challenging to measure in many instruments due to inherent subjectivity and the absence of standardized metrics (Nathan et al., 2017; Dietrich, 1980).

### **Implications for Guidance and Counseling Practice**

Life skills assessment has direct and substantial implications for guidance and counseling practice in elementary schools across several key dimensions. The primary function of assessment is needs identification, enabling counselors to accurately recognize students' developmental strengths and deficits and to inform the design of targeted, data-driven interventions (Picklesimer & Miller, 1998; Kadish et al., 2001; Davydova & Sorokin, 2019). Comprehensive assessment data facilitate individual profiling, allowing for a holistic understanding of students' capacities across multiple life skills domains and supporting personalized guidance approaches (Ghombavani et al., 2012; Khadka et al., 2025).

Assessment-informed interventions demonstrate greater effectiveness in improving a range of student outcomes. Life skills training programs guided by baseline assessment data have been shown to enhance social self-confidence, emotional regulation, and self-management skills, while reducing risk behaviors among elementary school students (Tymes et al., 2016; de Souza et al., 2021; Wu et al., 2023; De Souza et al., 2022). Counselors can design programs targeting social skills development, motivation, and emotional well-being that are aligned with the specific needs profiles of individual students or student groups (Hartzell et al., 2020; Kilian & Kilian, 2011). Program effectiveness evaluation becomes more systematic and evidence-based when standardized assessment instruments are employed to measure pre- and post-intervention change (Ndetei et al., 2019; Maruska et al., 2010).

Models of teacher and counselor training for life skills program implementation indicate that combinations of modeling, feedback, and group-based training enhance professional competence in assessment administration and intervention delivery (Hahn et al., 2002; Shechtman et al., 2005; Brock & Carter, 2017). This professional capacity development is critical, as assessment effectiveness depends not only on instrument quality but also on the competencies and practical understanding of the practitioners who use them (Wijaya et al., 2019; Kerdnaimongkol, 2025). Counselors require expertise in selecting appropriate instruments, conducting standardized administration, accurately interpreting results, and translating findings into actionable intervention recommendations (Sheperis et al., 2018; Solmonson, 2024).

Effective communication strategies with students constitute a critical component of meaningful assessment, particularly in diverse contexts. Developmentally appropriate communication requires adaptation of language, settings, and questioning techniques to engage elementary school students effectively (Erdman & Lampe, 1996; González-Rosario & Gibbons, 2025). Cultural responsiveness in communication involves the use of multicultural perspectives, clear language, and visual supports to connect with students from diverse backgrounds (Vitto, 2024; Conoley et al., 2015). Active listening and empathy foster trust and rapport, which are essential when working with students from marginalized backgrounds or those with special needs (Erdman & Lampe, 1996; González-Rosario & Gibbons, 2025).

Collaboration with teachers and families strengthens the impact of life skills assessment through shared data interpretation to inform individualized education plans, parental engagement in understanding and supporting children's life skills development, and the use of assessment data to advocate for school-level or policy-level change (Hatch et al., 2022; Amatea et al., 2013; de los Ángeles Cueli Naranjo & Larrosa, 2022). Collaborative approaches ensure that assessment data lead to actionable, contextually relevant interventions supported by a comprehensive student support ecosystem (Brown & Johnson, 2024; Solmonson, 2024).

Narrative-based instruments complement quantitative measures by capturing qualitative changes in adaptability, self-construction, and meaning-making processes that are difficult to quantify (Di Fabio, 2015; Dudek & Cook, 2019). Narrative assessment provides rich formative feedback and supports reflective practice, enabling deeper insight into student growth and counseling effectiveness (Di Fabio, 2015; Oktaviana et al., 2026). Integrating narrative and quantitative approaches yields a more comprehensive understanding of student development and counseling outcomes, thereby supporting more informed decision-making in guidance and counseling practice (Dudek & Cook, 2019; Hatch et al., 2022).

### **Opportunities and Recommendations in Life Skills Instrument Development**

Gap analysis in the literature reveals several important opportunities for the development of more effective and contextually relevant life skills assessment instruments. Twenty-first century skills such as critical thinking, digital literacy, and meta-skills remain underrepresented in existing instruments, despite their growing recognition as essential components of contemporary education curricula (Sarwanto et al., 2021; Jocham & Pohlmann-Rother, 2025; Wolter & Timler, 2014). The need for inclusive and multidimensional instruments suitable for diverse populations and children with special needs also remains an inadequately addressed priority (Vlachou et al., 2025; Hvalby et al., 2024). Underrepresented life skills domains include metacognitive skills, metalinguistic abilities, and practical daily living skills that are critical for independent functioning (Wolter & Timler, 2014; Wallace, 1986; Hvalby et al., 2024).

Innovative item formats offer significant potential to enhance validity and student engagement in assessment. Open-ended, multimodal, and digital formats have shown promise in capturing complex competencies such as critical thinking and digital literacy in more authentic and engaging ways (Sarwanto et al., 2021; Wan & Henly, 2012; Oakley et al., 2020). Adaptive assessment platforms that adjust difficulty levels based on students' responses can provide more precise measurement while

reducing cognitive load and increasing motivation (Zhidkikh et al., 2023). The use of simulations, serious games, and virtual environments offers rich and realistic assessment contexts that capture competencies in situations closely resembling real-life experiences (Czaja et al., 2017; Cornacchia et al., 2025).

Best practices for cultural adaptation of instruments have been identified through literature synthesis and include comprehensive processes involving local stakeholders, systematic translation with verification of conceptual equivalence, pilot testing with target populations to identify problematic items, and rigorous psychometric validation within new contexts (Slomp et al., 2025; Kirova & Hennig, 2013; Manohara et al., 2025). Participatory co-design approaches that involve children, teachers, families, and community members in instrument development enhance cultural relevance, acceptability, and sustainability (Zieschank et al., 2021; Ryan et al., 2025; Gilljam et al., 2020). Decolonial frameworks that emphasize local epistemologies and dignity further strengthen the impact and equity of assessment practices, particularly in historically marginalized contexts (Ghiano, 2025; Gomez Cardona et al., 2023).

The integration of technology in life skills assessment opens opportunities for more responsive, real-time, objective, and scalable measurement. Deep learning and artificial intelligence enable classroom activity recognition, visual attention analysis, and monitoring of learning behaviors, providing immediate feedback to educators and counselors (Deshpande & Deshpande, 2023; Jiao & Qi, 2025). Hybrid digital platforms that combine analytics with scenario-based tasks can bridge individual and group competencies while offering personalized feedback (Maki, 2023; Zhidkikh et al., 2023). However, technological implementation must carefully consider data privacy, accessibility, digital equity, and the need for rigorous validation prior to widespread adoption (Cornacchia et al., 2025; Maki, 2023).

Based on a comprehensive synthesis of the literature, several key recommendations can be formulated to guide future research in the development and validation of life skills assessment instruments. Instrument development principles should include real-life situational observation, multidimensional approaches, high validity and reliability, and inclusivity to ensure relevance and usability across contexts (Davydova & Sorokin, 2019; Ghombavani et al., 2012; Hafina et al., 2024). Researchers should prioritize the development of instruments that capture the complexity of life skills through the integration of cognitive, affective, and behavioral domains within a coherent assessment framework (Gomes, 2025; Hvalby et al., 2024).

Best practices for developmentally appropriate self-report instruments include co-design with children to ensure that items are understandable and relevant from their perspectives; the use of concrete items with familiar situational examples; integration of audio-visual supports to enhance accessibility for students with limited reading abilities; and user training to ensure students understand response scales and can report accurately (Davydova & Sorokin, 2019; Zieschank et al., 2021; Cremeens et al., 2007). Participatory co-design with children requires their active involvement in instrument design, iterative content refinement based on their feedback, and child-friendly formats that make the assessment process engaging rather than threatening (Zieschank et al., 2021; Ryan et al., 2025; Gilljam et al., 2020).

Expert validation and pilot testing phases should follow rigorous procedures,

including content validation by expert panels to ensure items adequately represent intended domains; small-scale pilot testing to identify administration and comprehension issues; factor analysis to verify hypothesized dimensional structures; and reliability testing to ensure internal consistency and temporal stability (Mossman et al., 2021; Vahdani et al., 2024; Ji et al., 2022). For children aged five to nine years, additional psychometric evaluation steps are required, including factor analyses that account for developing cognitive capacities, reliability testing with age-appropriate time intervals, content validation to ensure developmental appropriateness, measurement invariance testing across age and gender groups, and test–retest procedures with intervals suitable for young populations (Maddah et al., 2023; Balsak et al., 2025; Fuentes et al., 2025).

Co-design methodologies involving children require approaches that carefully consider power dynamics and ensure that children’s voices are authentically represented throughout the development process (Zieschank et al., 2021; Ryan et al., 2025). Children’s participation in design not only improves instrument quality but also empowers them as active agents in assessment processes that directly affect them (Gilljam et al., 2020; Ryan et al., 2025). Content and format adjustments based on children’s input ensure that instruments truly measure what matters from their perspectives, rather than solely reflecting adult-defined priorities (Zieschank et al., 2021; Cremeens et al., 2007).

Future research should prioritize the development and validation of instruments targeting meta-skills and digital literacy, which are increasingly critical in contemporary education yet remain underrepresented in existing measures (Sarwanto et al., 2021; Jocham & Pohlmann-Rother, 2025; Pan et al., 2025). Longitudinal studies are needed to track life skills development over time, understand growth trajectories, and validate instrument responsiveness to developmental change and intervention effects (Ross et al., 2019; Huebner et al., 2000). The implementation of child-centered co-design methodologies should become standard practice rather than an exception, ensuring more valid and meaningful assessment outcomes (Zieschank et al., 2021; Ryan et al., 2025; Gilljam et al., 2020).

Cross-cultural validation and systematic adaptation across countries—particularly in underrepresented regions such as Sub-Saharan Africa, South Asia, and Latin America—represent critical research priorities (Akongo et al., 2025; van Zyl et al., 2023; Kusi-Mensah et al., 2022). Multidisciplinary and cross-national collaboration can facilitate the development of more universal yet culturally sensitive instruments, mitigating Western bias that has long dominated the literature (Stowell et al., 2025; Alavi et al., 2026). Researchers should adopt frameworks that integrate basic needs theory, positive youth development, and social constructionist perspectives to conceptualize life skills as dynamic and context-dependent competencies rather than fixed traits (Hodge et al., 2013; Hodge et al., 2016; Ortiz-Rodríguez et al., 2024).

## CONCLUSION

The systematic review of literature from 2010 to 2025 reveals that life skills assessment instruments for elementary school students have evolved toward more comprehensive, multidimensional, and culturally sensitive approaches. Core domains consistently assessed include effective communication, problem-solving, emotion

regulation, social skills, and self-awareness, while emerging domains such as digital literacy and career readiness are receiving increasing attention. A wide range of instruments is available, including self-report questionnaires, observational scales, performance-based assessments, and narrative and digital instruments, each with distinct strengths and limitations. The psychometric characteristics of validated instruments generally demonstrate good reliability and validity; however, challenges remain in cross-cultural adaptation, responsiveness to change, and the assessment of affective and behavioral domains.

The implications for guidance and counseling practice are substantial. Effective assessment enables more precise identification of student needs, targeted intervention design, evidence-based program evaluation, and more effective collaboration with teachers and families. Significant opportunities exist for developing instruments that integrate 21st-century skills, employ innovative technology-based formats, and adopt participatory co-design approaches involving children and communities. Recommendations for researchers emphasize the importance of rigorous psychometric validation, systematic cultural adaptation, integration of quantitative and qualitative methods, and the development of inclusive and developmentally appropriate instruments. Future directions should focus on creating instruments that are not only psychometrically robust but also contextually relevant, accessible to diverse populations, and responsive to the practical needs of guidance and counseling professionals in supporting the holistic development of elementary school students. Collaboration with teachers, families, and communities strengthens the impact of assessment by ensuring that data are translated into contextually meaningful actions. Professional capacity building in assessment literacy and culturally responsive communication is a prerequisite for effective implementation.

Future directions for research and practice should include the development of hybrid instruments that integrate traditional psychometrics with adaptive technologies for real-time measurement and personalization. Expanding qualitative components within quantitative scales may better capture affective and behavioral domains. Priority should be given to long-term responsiveness studies, particularly among underrepresented populations and in resource-limited contexts. Advancing participatory, context-sensitive adaptation and validation processes will ensure cultural relevance and inclusivity. Collaboration among researchers, practitioners, policymakers, and communities will be essential to develop and implement next-generation life skills assessment instruments that genuinely serve the diverse needs of elementary school students worldwide.

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