

## Quality of Life Index for Inclusive Education and how to use it in the monitoring of the European Child Guarantee



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E A S P D

European Association of Service providers for Persons with Disabilities

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### **Abstract**

This report offers a framework for understanding the use of the Quality of Life Index for Inclusive Education (QoLI-IE) to monitoring the educational areas of the European Child Guarantee (ECG). The document starts presenting the conceptual and applied foundations of the Quality of Life Model (Schalock and Verdugo, 2002) to contextualise the role that quality of life assessment tools have to gather evidence on personal outcomes that can be used for monitoring purposes to feed in decision-making focused on the implementation of enhancement strategies regarding individuals, schools, and policies. This report also provides a methodological framework for the development and validation process of the QoLI-IE for those countries interested, guidelines on how to monitor the ECG using the QoLI-IE and what to do with the evidence collected, and recommendations for EU policymakers on how to establish a framework to facilitate the national process to feed in the European Framework to monitoring the ECG.



## **Executive summary**

The European Association of Service Providers for Persons with Disabilities (EASPD) has proposed, within its "Commit!" strategy, to monitor European policies with a right-based approach. This research follows up on this, by exploring how the Quality of Life Index for Inclusive Education (QoLI-IE) could be used for monitoring the European Child Guarantee (ECG). The ECG is a Recommendation adopted by the European Council in 2021 that seeks to prevent and combat social exclusion by guaranteeing the access of children at risk of poverty and social exclusion to a set of key services: early education and care, education (including school-based activities), healthcare, nutrition, and housing.

Understanding the usefulness of the QoLI-IE for the goals proposed by EASPD (i.e., monitoring the ECG) requires that the reader understands the suitability of the instrument as well as the conditions under which the instrument should be implemented to monitoring the ECG in terms of validity and reliability (i.e., so that the evidence collected regarding the ECG is as accurate as possible and one can trust it to feed decision-making regarding enhancement strategies). Bearing this need in mind, the current report offers a comprehensive framework that will help the reader to understand why using this instrument to monitor the ECG and, most important, how to monitor it, and the added value that the use of this instrument has to enhance the own ECG.

The present report includes a series of chapters that, in a consecutive manner, will help the reader to find an answer to all these questions. The report starts with a conceptual chapter presenting the Quality of Life Model of Schalock and Verdugo (2002). This model has been the matrix for the development of the QoLI-IE. The conceptual and applied bases of the model are explained in detail in the chapter. These foundations are necessary to understand how the Quality of Life Model gets translated from

a conceptual approach to a series of evidence-based actions focused on enhancing the quality of life and enjoyment of rights of individuals and the improvement of schools and organisations, and public policy. In this first chapter, a complete rationale explaining why to use the QoLI-IE to address the monitoring of the educational areas of the ECG is provided (i.e., early childhood education and care, and education, including school-based activities).

Offering opportunities for the development and validation of the QoLI-IE in the different European Union countries that are interested in doing so is also provided in the report. Together, Chapters II and III offer a methodological framework so that those countries interested can localise, design, develop and validate the QoLI-IE in their territories. These chapters highlight the chief steps involved in the design and validation of quality of life assessment instruments:

- a) Identification of target group(s) and context(s) of interest (i.e., identification of group(s) and context(s) that constitute a priority due to their vulnerability regarding the access to and enjoyment of education)
- b) Determination of core quality of life indicators and items to measure personal outcomes in said groups and contexts.
- c) Validation of the items regarding their content.
- d) Development of a pilot instrument.
- e) Field work.
- f) Pilot study.
- g) Calibration of the instrument through the analysis of its items and analyses regarding evidence of validity and reliability.

Counting with instruments such as the QoLI-IE is an important and necessary step, but not enough to monitor quality of life or, as is the case of the present report, to monitor the educational areas of the ECG. Therefore, beyond instruments, it is necessary to provide a framework for action focused on how to monitor personal outcomes and what to do with the evidence gathered, since monitoring always should be followed by concise strategies aimed at enhancing what has been monitored under a functional assessment approach. Thus, Chapter IV offers a systematic framework for collecting evidence to monitor the educational areas of the ECG and it also offers guidelines on how to use the evidence collected to feed enhancement strategies focused on the improvement of:

- a) The quality of life of students, especially, the most vulnerable ones (e.g., like those with intellectual and developmental disabilities).
- b) The quality of schools' cultures, policies, and practices, so that these elements are aligned and directed towards the access, participation, learning, and development of students to their fullest potential, key elements of a highquality inclusive education.
- c) Social initiatives and recommendations such as the ECG.

Monitoring of these three elements and the implementation of enhancement strategies is essential to go beyond the understanding of the implementation of the ECG (i.e., to see if students really have access to and enjoy the areas of early education and care, and education, including school-based activities). This will also allow improving the ECG itself on an ongoing basis: the key is that countries learn on what they are doing well or bad (i.e., monitoring) to act consequently so that their students (especially those in need) can enjoy their rights (i.e., evidence-based enhancement strategies at different levels).

Chapter IV ends with a series of concise recommendations on how to establish a framework to facilitate the national action process to feed in the European framework to monitoring the ECG. Recommendations for those countries that are still developing their national action plans on the Child Guarantee are also provided.





### **List of abbreviations**

The following report uses a series of terms consistently throughout the document. With the goal to make the read easier for those who read this report, we provide the following list of abbreviations (terms are presented in order of appearance in the text):

No.	Abbreviation	Term
1.	EASPD	European Association of Service Providers for Persons with Disabilities
2.	ECG	European Child Guarantee
3.	QoLI-IE	Quality of Life Index for Inclusive Education
4.	QoL	Quality of Life
5.	IDD	Intellectual and Developmental Disabilities
6.	IE	Inclusive education
7.	EU	European Union
11.	EW	Emotional wellbeing
12.	PW	Physical wellbeing
13.	MW	Material wellbeing
14.	PD	Personal development
15.	IR	Interpersonal relations
16.	SI	Social Inclusion
17.	RI	Rights
18.	SD	Self-determination
19.	UNCRPD	United Nations Convention on the Rights of Persons with Disabilities
20.	Art(s).	Article, articles
21.	INICO	Institute for Community Inclusion of the University of Salamanca
21.	ICT	International Test Commission

## Introduction and overview of the present report

The European Association of Service Providers for Persons with Disabilities (EASPD) is a not-forprofit organisation that represents over 20,000 social service providers organisations across both Europe and disability. Within its "Commit!" strategy, which highlights its commitment to support services based on a rights approach, EASPD seeks to contribute to monitoring the European Child Guarantee (ECG). The ECG is a Recommendation adopted by the European Council in 2021 that seeks to prevent and combat social exclusion by guaranteeing the access of children in need to a set of key services: early childhood education and care, education (including school-based activities), healthcare, nutrition, and housing.

The EASPD's proposal to contribute to ECG monitoring follows up on the recently coordinated work, together with Inclusion Europe and other partners, within the Erasmus+ project "Promoting positive attitudes and evidencebased policy for inclusive education". As a result of this project, the participating partnership, in a work package led by the University of Salamanca, has developed an instrument called Quality of Life Index for Inclusive Education (QoLI-IE). The QoLI-IE is a tool designed to monitor, from a rights-based approach and a quality of life (QoL) perspective, the extent to which the educational cultures, policies, and practices of general education schools are aimed at satisfying the aspirations and needs of students with intellectual and developmental disabilities (IDD) from 3 to 18 years old in a series of vital domains that are relevant to access, participation, learning, and development of students with IDD to their fullest potential, key elements in inclusive education (IE) (United Nations, 2006). The IDDs include intellectual disability, autism spectrum disorders, cerebral palsy, spina bifida, and other developmental disorders, as proposed by

the American Association on Intellectual and Developmental Disabilities (Schalock et al., 2021). The development of three versions of the QoLI-IE has been proposed: the Preschool version (for children from 3 to 6 years old), the Primary Education version (aimed at students from 7 to 12 years old), and the Secondary Education version (for adolescents from 13 to 18 years old).

Therefore, the QoLI-IE is a tool that can be useful for the monitoring purposes in the framework of the ECG. It can be used to gather evidence on the extent to which access is guaranteed (or not) for children in situation of vulnerability associated with a disability to ECG's areas of early childhood education and care, and education (including school-based activities). In addition to monitoring purposes, the framework that gave rise to the development of the QoLI-IE, the QoL model of Schalock and Verdugo (2002, 2012), also offers action guidelines for decision-making based on the evidence gathered at the level of individuals, schools and communities, and social systems (Amor et al., 2021).

Notwithstanding the above, understanding the use, in terms of validity and reliability, of the QoLI-IE as a monitoring tool regarding the educational areas highlighted in the ECG, requires understanding two points. First, it is necessary to clarify the conceptual and applied foundations of the QoL model since it is the base in which the QoLI-IE stands and that makes it an ideal monitoring and decision-making tool. Second, it is essential to present a framework for action that offers guidelines to national and European Union (EU) policymakers to: (a) conduct their own advances in relation to the development and validation of the tool in their territories; and (b) use it for monitoring and decision-making purposes in the educational areas of the ECG.

Bearing in mind the purpose proposed by EASPD and the aforementioned requirements, **this report develops** four chapters aimed at understanding the conceptual and methodological foundation of the tool, as well as its uses for monitoring and decision-making purposes within the framework of the educational areas of the ECG. Specifically, this report includes:

- A conceptual chapter that describes: (a) the Schalock and Verdugo's QoL model (2002), the matrix model on which the QoLI-IE is based; and (b) the QoLI-IE as an instrument, highlighting its conceptual and methodological foundation, its added value for monitoring results linked to quality IE (essential aspects in the areas of early childhood education and care, and education), and the impact of IE on students' QoL.
- 2. **A methodological chapter** that explains the development and validation of the QoLI-IE. The chapter presents the case of Spain, the only country to date that has begun a psychometric validation of the tool.
- 3. A chapter proposing a guide to developing the QoLI-IE in other countries, including recommendations on why doing this in the context of their Child Guarantee national action frameworks can be beneficial for the development, implementation, and monitoring of their local policies to help comply with the ECG in their territories.
- 4. A final chapter, addressed to the EU policymakers, with an explanation of how to monitor IE based on the use of the QoLI-IE and how to feed educational decision-making regarding individuals, schools and policies, and a set of recommendations to the EU on how to establish a framework to facilitate the national process to feed in the European Framework to monitoring the ECG.

#### Table 1

## Highlights of Introduction and Overview of the present report

The QoLI-IE is a monitoring tool which can be applied to the areas of early childhood education and care, and education within the ECG. Understanding the uses of the instrument for this purpose requires the following:

- A conceptual understanding of the model that is the base of the instrument, and of the instrument itself.
- A methodological framework showing how the QoLI-IE has been developed and validated, presenting the case of Spain, the only country which has started its validation.
- Specific guidelines on how to develop and validate the QoLI-IE in different countries, and recommendations on why doing this in the framework of the ECG national action plans.
- Explaining how to use the instrument for monitoring purposes and what to do with the evidence gathered, and providing a series of recommendations on how to establish a framework to facilitate the national process to feed in the European framework to monitor the ECG.

## Chapter I: The Quality of Life model and the Quality of Life Index for Inclusive Education

#### 1. Introduction

Understanding the value of the Quality of Life Index for Inclusive Education (QoLI-IE) to monitoring the European Child Guarantee (ECG) for children with disabilities requires addressing the conceptual and applied implications of the Quality of Life (QoL) model (Schalock and Verdugo, 2002), given that it is the model that has given rise to the instrument. By doing so, the reader will understand the role that the instruments developed under the model have to gather evidence regarding personal outcomes and make decisions based on the evidence collected. In this sense, in this chapter, the conceptual and applied implications of the QoL model are described first. Once the reader is familiar with them, then the chapter contextualises these implications within the educational field through the QoL-IE, a key issue to understand its use to monitoring the areas of early childhood education and care, and education (including school-based activities) within the ECG.

## 2. The Quality of Life Model

More than two decades of rigorous research have made the Schalock and Verdugo's QoL model (2002) the most widely accepted QoL model by the international community in the field of disability. Although the model was originally developed in persons with intellectual and developmental disabilities (IDD), it has been applied to other groups, such as persons without disabilities, drug users, persons with visual disabilities, persons with physical disabilities, social service users, older people, persons with brain injury, and persons with autism spectrum

disorders (Fernández, 2019). The main reason that explains why this model is the most cited and accepted in the field is that it does not provide just a conceptual basis to understand what QoL is. The model also offers an action-oriented framework that allows the materialisation of values that emphasise the rights of persons with disabilities through the multidimensional assessment with the main QoL indicators and the development of actions guided by these values and supported by evidence (Amor et al., 2020). Next, the conceptual and applied implications of the model are presented.

## 2.1. Conceptual foundation of the Quality of Life Model

From this model (Schalock and Verdugo, 2002), QoL is defined as a state of personal wellbeing that:

- Is multidimensional, that is, it is composed of eight essential domains in the lives of all people (i.e., emotional wellbeing [EW], physical wellbeing [PW], material wellbeing [MW], personal development [PD], interpersonal relations [IR], social inclusion [SI], rights [RI], and self-determination [SD]).
- 2. Has universal and cultural properties.
- 3. Has objective and subjective components.
- 4. Is influenced by personal and environmental factors, as well as by the interaction between them.

Conceptually, the QoL model also shares the same set of values about persons with disabilities that underlies the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD; United Nations, 2006): equity, equality, empowerment, and supports. Not in vain, the

model already proposed, before the UNCRPD was passed, rights as a key domain in the lives of persons with disabilities. In a recent work, the authors of the model highlighted its conceptual implications (Amor et al., 2020):

- a) Respect for the persons and the domains that make up their lives.
- b) Respect for their rights and the power to make choices and decisions in everything that affects them.
- c) To seek the satisfaction of their aspirations and needs.

## 2.2. Quality of Life as an applied framework: Measurement and change agent

Beyond the conceptual bases of the model, it is necessary to understand how to articulate the proposal in a systematic framework for action that allows transferring the values shared with the UNCRPD to the measurement and improvement of the QoL and rights of persons with disabilities. And this is possible because the model stands as a measurement framework and a change agent (Verdugo et al., 2021).

## 2.2.1. Quality of Life as a measurement framework

Researchers have reached an agreement regarding the cross-cultural nature of the eight QoL domains proposed by the model (Schalock et al., 2005; Wang et al., 2010). This entails that the QoL of everybody, no matter whether they have a disability or not, or the context where they live, is made up of these eight QoL domains. However, domains are conceptual, theoretical. It is necessary to translate them into observable and measurable elements to understand what is indicative of each QoL domain for each person and context. Thus, research on the field has shown that the eight domains can be operationalised through core indicators, which are perceptions, behaviours, or specific conditions of the QoL domains that reflect personal wellbeing, and that are observable and measurable (Gómez, 2010; Schalock et al., 2007). Unlike the QoL domains (that are universal),

the indicators are sensitive to the culture (and contexts) and the characteristics of a given group (Amor et al., 2020). The following example illustrates the relationship between QoL domains and indicators: for both a Polish child without disabilities and a Spanish child with IDD, EW is an essential QoL domain, but the core indicators of EW are different for each one, since Poland and Spain are different contexts (e.g., with different policies concerning disability) and the support needs and competence of typically developing children and children with disabilities differ. This characteristic of the indicators entails that they must be identified and validated for specific contexts and groups (e.g., for Spanish children with IDD). Chapter II offers an overview on how to identify and validate QoL core indicators for Spanish students with disabilities enrolled in primary general education.

The operationalisation of the QoL domains through their core indicators is essential to implement the model in practice as a measurement framework and as a change agent. As a measurement framework, the indicators are specified through items. Items are brief statements or questions that reflect aspirations and needs of the person in the core indicators of each QoL domain. Thanks to them, it is possible to measure personal outcomes and monitoring the individual's QoL (Schalock et al., 2007). As highlighted by research (Gómez et al., 2020; Gómez et al., 2022) the QoL indicators are aligned with the rights enshrined in the UNCRPD (United Nations, 2006). The validation of the indicators (and the assessment of the QoL aspirations and needs of persons with disabilities in said indicators using items) is thus a way of knowing the level of access and enjoyment of individual rights (Heras et al., 2021). Table 2 provides a summary of QoL domains, QoL core indicators that have been identified and validated for persons with IDD, and the UNCRPD rights that are aligned with the core indicators of each domain.

Table 2

## Conceptual and measurement framework of Schalock and Verdugo's QoL model (2002)

QoL domain	Indicators	UNCRPD's right related to indicators
Emotional Wellbeing	Satisfaction, self-concept, and lack of distress or negative feelings	Arts. 16 (freedom from exploitation, violence, and abuse) and 17 (protecting the integrity of the person)
Interpersonal Relations	Social interactions, having identified friends, familiar interactions and relations, positive social contacts, relationships, and sexuality	Art. 23 (respect for home and the family)
Material Wellbeing	Housing, workplace, salary (pension, income), belongings, and savings	Arts. 27 (work and employment) and 28 (adequate standard of living and social protection)
Personal Development	Limitations/capacities, access to information and communication technologies, learning opportunities, work-related skills (or other activities), and functional abilities	Art. 24 (education)
Physical Wellbeing	Health care, sleep, health and its alterations, daily living activities, access to technical aids, and food	Arts. 25 (health) and 26 (habilitation and rehabilitation)
Self Determination	Goals and personal preferences, decisions, autonomy, and choices	Arts. 14 (liberty and security of person) and 21 (freedom of expression and opinion, access to information)
Social Inclusion	Inclusion, participation, accessibility, and supports	Arts. 8 (awareness-raising), 9 (accessibility), 18 (liberty of movement and nationality), 19 (living independently and being included in the community), 20 (personal mobility), 29 (participation in political and public life), and 30 (participation in cultural life, recreation, leisure and sport)
Rights	Intimacy, respect, knowledge, and exercise of rights	Arts. 5 (equality and non-discrimination), 6 (women with disabilities), 7 (children with disabilities), 10 (right to life), 11 (situations of risk and humanitarian emergencies), 12 (equal recognition before law), 13 (access to justice), 15 (freedom from torture or cruel, inhuman or degrading treatment or punishment), and 22 (respect for privacy)

This way of specification from theory (domains) to measurement (indicators assessed through items) has crystallised into the development of standardised QoL assessment instruments that are used to monitor the QoL of individuals and thus design and implement strategies focused on the enhancement of individuals' QoL and enjoyment of rights. Some of these tools have been developed for children, like the KidsLife Scale (Gómez et al., 2016), devoted to measuring QoL in children with IDD enrolled in special education; while others, like the San Martín Scale (Verdugo et al., 2014), have been developed to assess QoL in adults (in this case, adults with IDD and pervasive and extensive support needs).

## 2.2.2. Quality of Life as a change agent

The information obtained through the assessment of personal outcomes using QoL assessment tools can be analysed as disaggregated (i.e., at the individual level) or aggregated data, thus allowing the collection of different types of information to be used according to the goal of the QoL evaluation. This analysis of QoL scores can feed evidence-based decision-making at different levels, and this is what makes QoL a change agent (Verdugo, 2018). Understanding the role of the QoL model as a change agent makes it necessary to highlight another characteristic of the model: QoL is based on a systems perspective (Bronfenbrenner, 1979). This perspective assumes that people live in a complex social system made up of different levels:

- a) Microsystem. Refers to the immediate context in which the person lives and that directly affects the person (e.g., living placement, family, or friends).
- b) Mesosystem. Includes everything that directly affects the functioning of the microsystem (e.g., neighbourhood, community, organisations, or schools).
- Macrosystem. Alludes to the broader cultural patterns, socio-political trends, and economic factors that directly affect values and beliefs.

These system levels influence, directly or indirectly, the development of people and, therefore, their QoL (Schalock and Verdugo, 2002). Thanks to the clear definition of these three levels, the systems perspective provides a framework for action to guide the use of the QoL scores obtained through QoL assessment instruments. Thus, the use of QoL scores can inform decision-making to accomplish improvement strategies at each system level. To do this, QoL information can be treated as disaggregated or aggregated data:

- a) Individual scores can be directed towards the microsystem and be a valuable input to plan and implement supports to improve the QoL of the person.
- b) Using QoL scores as aggregated data requires focusing on the mean value of individual QoL assessments conducted in a group of people. Aggregated data can focus on mesosystem using the mean QoL-score obtained through the QoL assessment of a group of population attending to a school or organisation in a given community. In this case, QoL information gives insight to implement school/organisation-focused strategies to address the areas where the group needs more support. The use of aggregated data can also be directed at region or state level, and be an input to asses public policy and initiatives (i.e., macrosystem).

As a summary, Figure 1 depicts the Schalock and Verdugo's QoL model (2002) as a conceptual and applied framework from a systems perspective. The figure offers a visual impression of the transition from values (and theory) to evidence-based actions focused on the improvement of individuals' QoL and enjoyment of rights at the three system levels. Circles and ellipses reflect conceptual aspects, while rectangles define values-driven and evidence-based actions.

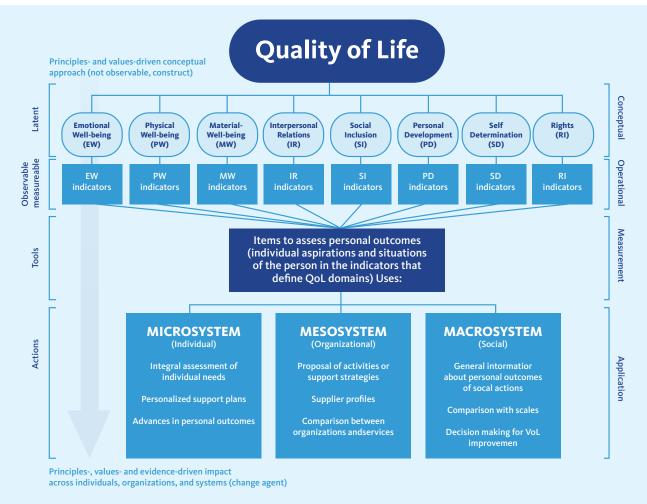


Figure 1. Quality of Life as a conceptual and applied framework (adapted from Amor et al., 2020, p. 71)

## 3. The Quality of Life Index for Inclusive Education (QoLI-IE)

## 3.1. The concept of Quality of Life and inclusive education

Since the second half of the 20th century, democratic societies in Europe have decidedly committed to guaranteeing access to social, educational, and health services for all people without exclusions. This has been ratified by the signing and adherence of European countries to the most important international treaties, such as the Universal Declaration of Human Rights (United Nations, 1948), the Convention on the Rights of the Child (United Nations, 1989), and, more recently, the UNCRPD (United Nations, 2006).

In this sense, the development of inclusive education (IE) systems stands as a cornerstone, since providing all people, no matter their social conditions or personal functioning, with a quality education, is essential to generate citizens ready to contribute to democratic societies. Thus, over the last two and a half decades, efforts have been made to develop and consolidate IE systems that promote the access, participation, learning, and development of all students to their fullest potential within general education contexts (Amor et al., 2021). Evidence shows the benefits that IE brings to all students, and not only to those with difficulties linked to their social condition or personal functioning. These benefits are associated with the improvement of personal outcomes in different vital domains of the students. For example, regarding students with disabilities, IE brings improvements in the cognitive and social spheres, in the acquisition of knowledge and academic skills, in communication and social interactions, in self-determination, in

the sense of belonging and learning expectations, and in the achievement of post-school outcomes (Arroyo et al., 2022). This improvement in personal outcomes linked to inclusion also occurs in students without disabilities, with an enhancement of social skills (Llabrés et al., 2019). Moreover, studies show that IE does not negatively affect the academic achievement of students without disabilities (Szumski et al., 2022), with studies that even show slight benefits of IE in this area (Szumski et al., 2017).

Although advances in IE are a reality for most students, students with learning and developmental difficulties associated with their disability, especially those with IDD and multiple disabilities, have not benefited from IE to the same extent as the rest of their partners, as Buchner et al. (2021) appoint. In their study, analysing the trends of IE in Europe over the last years, the authors concluded that students with IDD enjoy lower rates of inclusion and still constitute the main population within special education schools. Therefore, although the signing of documents and treaties such as the UNCRPD (United Nations, 2006) is important, it does not translate into a real improvement in the access and enjoyment of IE, nor does it mean that the educational practices, cultures, and policies that are implemented to support needs of students with disabilities are adequate (Amor et al., 2019).

Therefore, guaranteeing a high-quality IE for all students does not only requires a legal framework. It also requires a framework for action that allows directing the efforts of educational systems towards the access, participation, learning, and maximum development of all students (Arroyo et al., 2022). For this reason, in the last years, different authors (e.g., Heras et al., 2021; Muntaner, 2013; Pazey et al., 2016; Verdugo, 2009) and organisations (e.g., EASPD, n.d.) have begun to defend the need to adopt the conceptual and applied implications of the Schalock and Verdugo's QoL model (2002) to support the fulfilment of the right to IE for all students, especially those with disabilities. This is because the relationship between IE and QoL is bidirectional: in addition to the evidence showing the benefits that IE brings in terms of QoL, QoL is

a framework that has much to offer to accompany educational systems in their journey towards inclusion (Amor et al., 2021; Pazey et al., 2016).

Bringing the QoL model to education means assuming a multidimensional approach that considers all the vital domains that are essential for the lives of students (i.e., the eight QoL domains), and that places them and their families in the centre of the educational process. The multidimensional view of students is the starting point to understand their aspirations and needs as criteria for defining programs and implementing supports aimed at improving personal outcomes in each QoL domain (Sánchez-Gómez et al., 2020). From an applied point of view, the QoL model offers an individual measurement framework that is essential to monitor the QoL of students. The information obtained through the individual QoL assessment can be used to plan enhancement strategies targeted at students (i.e., microsystem), schools (mesosystem), and educational policies (macrosystem). Moreover, it is worth stressing again the fact that the QoL domains (through their indicators) are sensitive to the goals enshrined in the UNCRPD. Regarding Art. 24 (right to education), a clear alignment can be made between the goals of IE and QoL domains (Amor et al., 2021; Turnbull et al., 2003):

- a) Access is aligned with RI.
- b) Participation is parallel to SI and IR.
- c) Learning is associated with SD and PD.
- d) Development of students to their fullest potential is related to EW, PW, MW, PD, and SD.

Consistently with this conceptual and applied framework, different standardised QoL assessment tools have been developed. These tools are used to assess personal outcomes with a twofold goal: (a) monitoring the personal outcomes of the students (i.e., understanding the status of the aspirations and needs linked to personal wellbeing for domains' core indicators) and (b) mirroring the extent to which the educational practices, cultures, and policies of a given school are contributing (or not) to meet the aspirations and needs of their students in these

QoL domains aligned with IE goals, especially in the most vulnerable ones. All this with the end in mind of making evidence-based decisions at the three system levels (Heras et al., 2021). For this reason, the QoL model stands as a framework from which to monitor IE and arrange and implement evidence-based enhancement strategies regarding students, schools, and social policies and initiatives.

## 3.2. The QoLI-IE: Foundations and use for monitoring inclusive education

Although researchers have developed different tools for evaluating personal outcomes in the educational context, like the KidsLife Scale (Gómez et al., 2016) or the Quality of Life Assessment of Adolescent Students (Gómez-Vela and Verdugo, 2009), these tools are not eligible for IE monitoring purposes in general education contexts. This is because they have either been validated in segregated contexts (KidsLife Scale) or they do not incorporate all the QoL domains (the questionnaire by Gómez-Vela and Verdugo, 2009).

The lack of comprehensive QoL instruments focused on general education contexts and the role of the model as a measurement framework and change agent, motivated EASPD to promote the development of a QoL assessment instrument that simultaneously:

- a) Includes all the QoL domains and core indicators in general education contexts.
- b) Can be used to monitor personal outcomes to address the extent to which the educational cultures, policies, and practices of schools are directing their efforts to meet the aspirations and needs of students in situation of vulnerability due to IDD in vital domains sensitive to access, participation, learning, and maximum development (EASPD, 2020a).

From this foundation arises the QoLI-IE, a tool that allows implementing the QoL model (Schalock and Verdugo, 2002) as a measurement framework and change agent in general education contexts for students with IDD. EASPD (2020a) has proposed the development of three versions of the QoLI-IE:

a) QoLI-IE Preschool version for students aged 3-6

- years (EASPD, 2020b).
- b) QoLI-IE Primary Education version for students who are between 7 and 12 years old (EASPD, 2020c).
- c) QoLI-IE Secondary Education version, aimed at adolescents from 13 to 18 years old (EASPD, 2020d).

Each version has 80 items, 10 per QoL domain. Their purpose is that all the relevant stakeholders of each school (i.e., educational community) can use the items to reflect on the extent to which the school's policies, cultures, and practices are centred on the satisfaction of the aspirations and needs of their students in the eight QoL domains. This is a way to assess whether these variables (i.e., cultures, policies, and practices) offer opportunities linked to students' access, participation, learning, and development. Through this reflective process, schools can identify the barriers that are present in their cultures, policies, and practices to meet the aspiration or need that is described in the item, as well as define strategies to transform the barriers into facilitators to guarantee access, participation, learning, and maximum development (Heras et al., 2021).

Together with the development of the three versions of the QoLI-IE, the EASPD has proposed a monitoring framework based on the use of the tool from a formative assessment approach. Formative assessment is an evaluation approach in which each school can identify what is doing well or wrong (through monitoring), to act accordingly to improve on a continuous basis. The assessment framework developed by the EASPD shows, step by step, what the QoLI-IE is, how to monitor IE using the tool through a shared reflection by the educational community, and annexes with examples that help relevant stakeholders get started (EASPD 2020a, 2020b, 2020c, 2020d). The following table summarises the IE monitoring process mobilised by the QoLI-IE:

Table 3

## Monitoring inclusive education through the QoLI-IE: A step-by-step guide (EASPD, 2020a, 2020b, 2020c, 2020d)

Step	Topic	Content
1	Select a heterogeneous group	School principal or someone in the management team of the school creates and coordinates a heterogeneous group for cultures, policies, and practices monitoring with the focus on students' QoL. The group must be enthusiastic about IE! The ideal would be if this group is composed by relevant stakeholders from the school and the educational community (i.e., policy makers, teachers, paraprofessionals, family members, students' representatives).
2	Ready and steady	In this step, you have to share an explicit view on the school you are. Think and make explicit your mission and values, and your vision for the future regarding the inclusion of students with ID. Provide an explanation (and check for understanding) on what school's cultures, policies, and practices are. Once these terms are understood, think and make explicit your school's cultures, policies, and practices.
3	Getting started with the QoLI-IE	Provide an explanation on what QoL is, and its importance regarding IE of students with ID. The conceptual basis provided in Chapter III¹ may serve for this purpose. Present the QoLI-IE as is done in this document. The QoLI-IE is a resource to support schools. It is not an evaluation of their quality. It is a resource to mirror the school regarding the extent to which it pursues students' fullest development (and other QoL outcomes linked to IE).
4	Using the Qo- LI-IE to mon- itor	Use the shared cultures, policies, and practices that you have defined in step 2 as the variables to monitor. Monitoring should be individual at a first stage, and then it is necessary to reach an agreement. Monitoring through the reflection should be focused on students' outcomes.  Use the items to make the reflection following the guidelines provided in the tool.
5	Identify barriers and opportunities	For each variable (i.e., cultures, policies, and practices), identify barriers and opportunities that hinder/can enhance students' QoL outcomes.
6	Prioritise	Reach an agreement on the most pressing needs for cultures, policies, and practices regarding the QoL domains.
7	Implement an improvement plan	Based on the prioritised areas, reach an agreement on how the opportunities/resources can be used to enhance students' outcomes.  Define goals to improve your cultures, policies, and practices. Goals should be specific, realistic, and measurable.  Implement strategies to improve students' outcomes (e.g., update your support strategies or resources allocation concerning practices, or update your school policies including a whole child approach as the defined in the QoL model).
8	Repeat	Go to Step 1 and repeat (the cycle of steps 1-8 may last 4-6 months).

Note. 'Chapter III does not refer to the Chapter III of this report but to the Chapter III that can be found in EASPD (2020a)

Finally, monitoring using the QoLI-IE or any other QoL instrument can follow two approaches:

- a) A qualitative approach, which is the one described in this Chapter and that proposed by EASPD with the development of the QoLI-IE (EASPD, 2020a). It consists of using the items to reflect on whether the schools' cultures, policies, and practices are taking into consideration or not the personal outcomes of their students.
- b) A complementary monitoring approach is the quantitative perspective. This approach is based on the development and validation of standardised QoL tools. It allows, beyond reflections, measuring the impact that the educational practices, cultures, and policies of each school have on their students. This approach allows using the evidence gathered through individual assessments as disaggregated or aggregated data, and arrange and implement improvement strategies regarding students, schools, and policies. The ideal is to combine both approaches to count with qualitative and quantitative information to feed in improvement strategies.

## 4. Summary and conclusions

The question to answer to summarise this chapter is why using the QoL model and the QoLIE-IE for monitoring purposes within the ECG? The QoL model and QoL-based tools like the QoLI-IE offer a framework that can be used to gather evidence about the impact that different initiatives have in terms of personal outcomes at the individual level. Moreover, as they are based on a systems perspective, it is possible to use aggregated results to assess trends about what is being achieved at school/ community and/or societal level (Amor et al., 2021). For this reason, QoL-based instruments can be used to monitoring the ECG. In this sense, the QoLI-IE can be used to monitoring the ECG's areas of early childhood education and care, and education (including school-based activities) for students with IDD in general education contexts,

given that the indicators have been identified for this population and in this context. And this, with the end in mind of an ongoing improvement of education regarding individuals, schools, and policies.

Finally, taking into consideration the characteristics of the QoL core indicators (i.e., they are sensitive to cultures, contexts, and characteristics of specific groups), the different versions of the QoLI-IE designed by the EASPD (2020b, 2020c, 2020d) must be adapted and validated for each country and group of interest (e.g., Spanish students with IDD enrolled in general education settings). Only by doing so, the countries will be in the right position to use the QoLI-IE for monitoring the ECG. Chapters II and III provide a methodological overview on how to: (a) identify vulnerable group(s) and context(s), and indicators and items for said group(s) and context(s); (b) validate the indicators and items; and (c) develop and validate a standardised version of the QoLI-IE that allows monitoring the ECG from qualitative and quantitative approaches. Last, Chapter IV shows how to measure personal outcomes and what to do with the evidence gathered at each system level, and offers a set of recommendations on how to establish a framework to facilitate the national process to feed in the European framework to monitor the ECG.



#### Table 4

#### **Highlights of Chapter I**

The QoL model is a conceptual and applied approach (measurement framework and change agent) that allows translating the values enshrined in the UNCRPD in actions based on evidence of personal outcomes at the micro-, meso-, and macrosystem levels, to improve the lives persons with disabilities and maximise their access to and enjoyment of rights.

IE is a right for all students. Evidence supports the benefits that it has for all students, regardless of their social conditions or personal functioning, in terms of their personal outcomes.

The relationship between IE and QoL is bidirectional. Different authors and organisations support the need to adopt the conceptual and applied implications of the QoL model in the educational context to promote the inclusion of students living in vulnerable situations. Emphasis is placed on the role that QoL has as a measurement framework for monitoring IE and as a change agent to implement evidence-driven improvement strategies regarding students, schools, and policies.

This has led to the design of QoL assessment tools focused on monitoring, from a formative approach, the extent to which school's cultures, policies, and practices are focused (or not) on the satisfaction of the aspirations and needs of students (especially of the most vulnerable ones) on the QoL domains, given that the QoL indicators are aligned with IE goals. Based on this evidence, informed decisions can be taken to enhance educational cultures, policies, and practices.

The QoLI-IE is an instrument that responds to this approach and has been designed to monitor and feed improvement strategies for the IE of students with IDD. Therefore, the QoLI-IE can be used to monitor the educational areas of the ECG: early childhood education and care, and education (including school-based activities).

The QoL model offers guidelines so that each country can build and validate their own versions of the QoLI-IE adapted to their reality and to those groups of students they consider relevant. Chapters II and III give an overview of this process. Finally, Chapter IV provides guidelines on how to monitor the educational areas of the ECG using the QoLI-IE and what to do with this information regarding each system level, and recommendations on how to establish a framework to facilitate the national process to feed in the European framework to monitor the ECG.

# Chapter II: Starting the validation process of the Quality of Life Index for Inclusive Education (QoLI-IE)

#### 1. Introduction

As mentioned in Chapter I, bringing the Quality of Life (QoL) model (Schalock and Verdugo, 2002) into practice as a measurement framework and as a change agent through the development of instruments like the Quality of Life Index for Inclusive Education (QoLI-IE), requires adapting tools to the contextual reality in which they are going to be implemented and the target groups which one needs to work with, given that the QoL indicators are sensitive to the culture and to the characteristics of groups and contexts.

The purpose of this chapter is to present the process of localisation and validation of the QoLI-IE that is being carried out in Spain, the only country that has started this process. The validation is being conducted by the Institute for Community Inclusion (INICO) of the University of Salamanca, who led the work package for the initial QoLI-IE proposal within the Erasmus+ project "Promoting positive attitudes and evidence-based policy for inclusive education" (coordinated by the EASPD and Inclusion Europe). To address the goal of this methodological chapter, in the following pages we will present: (a) the localisation or needs detection that led to the identification of the target groups and context for the development of the QoLI-IE in Spain; and (b) the process to set up the QoLI-IE in Spain, highlighting the methodology followed and the outcomes obtained so far.

## 2. Localisation: The needs detection or why to develop and validate the QoLI-IE in Spain

The need to validate the QoLI-IE in Spain has been motivated by the inclusive education (IE) trends experienced in the country. As in other European countries (Buchner et al., 2021), although data show an improvement in IE, IE is not a reality for all students, with those with intellectual and developmental disabilities (IDD) and with multiple disabilities at the bottom of the inclusion rates (Alcaraz-García and Arnaiz, 2020). The situation of IE in Spain, along with the conceptual and applied implications of the QoL model and the lack of QoL assessment tools aimed at general education contexts, is what motivated the INICO to adapt and validate the QoLI-IE.

For the case of Spain, the vulnerability experienced by students with IDD led the research team to prioritise the validation of the instrument in this group in the stage of primary education in general education contexts. In addition, because they present common characteristics, the validation has been extended to students with emotional concerns, students with learning difficulties, and students with challenging behaviours. The decision to choose the primary education stage was taken because it lasts 6 years (from 6 to 12) and covers the transition between childhood and adolescence, a critical developmental stage. Last, it was decided to validate the instrument in general education contexts because inclusion is only possible in normalised environments, as stated by the United

Nations Convention on the Rights of Persons with Disabilities (UNCRPD; 2006).

The following section presents an overview of the methodology followed for the starting of the validation process of the QoLI-IE Spanish version within primary general education contexts for students with IDD, students with emotional concerns, students with learning difficulties, and students with challenging behaviours, as well as the results obtained to date (October 2022). For full-detailed information, go to Heras et al. (2021).

## 3. Validation and outcomes

## 3.1. Identification of quality of life indicators

The starting point for the validation of the QoLI-IE in Spain has been the correct identification of the relevant QoL indicators for students with IDD, students with emotional concerns, students with learning difficulties, and students with challenging behaviours who are enrolled in primary general education in Spain. The identification of indicators is essential, since it allows defining an initial set of items that correctly describes the QoL aspirations and needs of the target students in the defined context. These items have been subject to subsequent validation through a delphi study which is presented in the next section.

Determining the indicators comprised two stages: (a) two parallel reviews, of which one was a literature review on QoL, IE, and students with the targeted conditions; and a review of already-existing assessment tools related to QoL and other concepts like IE and self-determination; and (b) a discussion between direct-practice professionals and expert researchers in delphi method, IE, and QoL.

A first literature review was conducted introducing, in the most important databases regarding the fields of IE and QoL, relevant search terms for the target groups and context identified

in the previous step. This literature review, in addition to allowing the identification of relevant QoL indicators for the groups and context of interest, made it possible to prepare a preliminary set of items describing QoL aspirations and needs for said indicators. This items description was complemented with a parallel review of existing assessment tools regarding QoL (e.g., Gómez et al., 2016; Gómez-Vela and Verdugo, 2009) and other related constructs like IE (e.g., Echeita et al., 2019). As a result of this phase, 240 items were developed (30 items per QoL domain).

In a second phase, a discussion was held between the research team, direct-practice professionals, and external researchers (n = 36). The relevance of the 240 items was discussed, taking as a reference the purpose of the tool. After the discussion, the pool of items was reduced from 240 to 154. These items were the output of this process and, at the same time, the input to start the validation of the items of the QoLI-IE, which is described below. The following table presents the QoL indicators identified for the target groups and context of interest in Spain.



Table 5

#### **QoL** indicators identified through literature search

Quality of life do- main	Core indicators identified through literature review
Material wellbeing	Belongings; educational institution and community resources; and socioeconomic status
Physical wellbeing	Health status; healthy habits (e.g., eating, sleeping, resting, physical exercise); and Healthcare
Emotional wellbeing	Satisfaction; self-concept; self-esteem; positive feelings; and absence of negative feelings
Personal Develop- ment	Skills, knowledge, and competences; daily living activities; and learning opportunities
Self-determination	Personal goals and objectives; elections; and self-direction
Interpersonal relations	Interactions; rewarding social contacts; and meaningful relations
Social Inclusion	Accessibility; participation; and recognition
Rights	Human and legal guarantees (e.g., dignity, respect, equity)

Note. Adapted with permission from Heras et al. (2021, p. 4)

#### 3.2. Validation of QoLI-IE items

The next step for the development of the instrument consisted of studying the evidence of content validity of the items generated in the previous step. Content validity refers to the extent to which the items adequately represent the universe of aspirations and needs linked to the QoL domains for students with IDD, students with emotional concerns, students with learning difficulties, and students with challenging behaviours enrolled in primary general education in Spain. Without evidence on content validity, it is impossible to conduct a QoL monitoring because no reference is available on what is indicative of QoL for the target groups and context. Moreover, without evidence on content validity, it is not possible to continue with the validation process of the QoLI-IE. Hence, providing the items with evidence on content validity is critical to develop and use the QoLI-IE.

To address the goal, a four-round delphi study was conducted involving 14 experts in IE, QoL, the conditions of interest, and primary, general education. The delphi method is an information-gathering technique that allows the consensus on the opinion of experts through repeated consultations (Reguant-Álvarez and Torrado-Fonseca, 2016). Through the four rounds, the experts had to complete different tasks to judge the items developed in the previous stage and propose new items. Table 6 summarises the rounds and tasks completed by the experts.

Table 6

#### Delphi study rounds and tasks completed by the experts

Round	Task to complete				
Round 1					
Task 1	The experts assessed the content of the items of the initial pool (n = 154) using the following criteria: suitability, importance, observability, and sensibility. To assess each criterion, professionals used a four-point rating scale ranging from 1 = absence of the attribute to 4 = maximum presence of the attribute. Items that obtained, for each criterion, a Mean $\geq$ 3.5 and a Standard Deviation < 1 were considered as valid regarding their content. As a result of this task, 113 items of the 154 were considered suitable, important, observable, and sensitive.				
Task 2	Each expert could propose a maximum of five new items per QoL domain. For these new items, the research team decided if they were relevant or not using qualitative criteria. The experts proposed 111 new items of which 61 were considered relevant by the research team.				
Round 2					
Task 3	The experts assessed the adequacy of the 61 items proposed in Round 1 Task 2 that the research team considered as valid. To accomplish this task, experts used a Yes/No response system. For an item to be considered valid and to be incorporated into the set of items, it had to meet the consensus of at least 12 of the 14 participants. This happened for 36 of the 61 items.				
Round 3					
Task 4	The experts discussed which of the discarded items -of the QoL domains that had lost the most items in the previous rounds – could be recovered.				
Task 5	The experts could propose new items for these domains and discuss them. As a result of Tasks 4 and 5, 24 items were recovered/generated for the domains that had less items.				
Round 4					
Task 6	The experts assessed the content of the items selected in Rounds 2 (n = 36) and 3 (n = 24) The criteria and response system were the same as in Round 1 Task 1. Of these 60 items, 44 met the criteria.				

As a result of the delphi study, 157 suitable, important, observable, and sensitive items were available with the following distribution regarding the QoL domains: material wellbeing (n = 19), physical wellbeing (n = 20), emotional wellbeing (n = 16), personal development (n = 20), self-determination (n = 18), interpersonal relations (n = 18), social inclusion (n = 25), and rights (n = 21). As this was not an optimal number of items for subsequent psychometric validation of the QoLI-IE (explained in Chapter III), it was necessary to reduce it to obtain a manageable number. Thus, the research team carried out an exhaustive

review of the pool of items and the best ones were selected based on their descriptive statistics (Mean and Standard Deviation) and considering the QoL core indicators covered.

Finally, a set of 96 items (12 per QoL domain) with evidence of content validity was obtained. This is the starting point for the field research that will focus on the validation of the QoLI-IE in students with IDD, students with emotional concerns, students with learning difficulties, and students with challenging behaviours enrolled in primary general education in Spain. These

items are available in English <u>here</u>, and countries interested in carrying out their developments can, citing this resource (Heras et al., 2021), take them as an input for their delphi studies.

4. Summary and Conclusions

This chapter has explained the process of localisation and the beginning of the validation of the QoLI-IE in Spain, the only country that has started this task. Other countries interested in locating and validating the QoLI-IE can start from the methodological framework presented in the chapter and which is described in detail in Heras et al. (2021). The methodology exposed in this chapter is suitable for any context and group, and the process to follow always involves: (1) identifying the vulnerable group(s) and the target context(s); (2) identifying core QoL indicators and items for said group(s) and context(s); and (3) providing the items with evidence on content validity. A methodological work as the one exposed here makes it desirable for the developers to have methodology-related knowledge, or to contact universities and/or research teams. Regardless of this, the authors of this report offer advice to those policy makers, authorities, and managers interested in locating and validating QoL indicators and items in their context (contact details: aamor@usal.es).

Two things can be done with the product obtained through the delphi study, both of which are relevant to the general purpose of this report:

- a) To conduct a qualitative monitoring of IE as explained in the section 3.2 of Chapter I.
- b) To address a psychometric validation of the QoLI-IE that, beyond the qualitative reflection, will allow measuring personal outcomes and thus conduct a quantitative monitoring of IE (also presented in 3.2 of Chapter I and that will be explained in more detail in Chapter IV).

Chapter III completes this methodological framework by providing an overview of how to accomplish the psychometric validation of

the QoLI-IE to obtain a calibrated instrument that serves the aforementioned purposes, and why doing this is going to be beneficial for the European Child Guarantee national frameworks.

#### Table 7

#### **Highlights of Chapter II**

The validation of QoL-assessment tools like the QoLI-IE requires following a specific methodology that starts from: (a) the identification of target group(s) and context(s); and (b) the determination of the relevant QoL core indicators and items for said groups(s) and context(s), and the subsequent provision of evidence of content validity to the items. To address this, a methodological framework has been presented in this chapter:

- a) Localisation or needs detection is specific for each country. Authorities, social organisations, and education professionals must identify the priority cases to work with (e.g., students with IDD).
- b) The identification of the core indicators requires conducting a process of systematic review of literature and QoL assessment instruments. This will allow defining indicators and designing items. Providing the items with evidence of content validity can be done through a delphi study such as the one described in the chapter.

Following this process, a set of indicators and items that adequately reflects the QoL aspirations and needs of the target students in the context(s) of interest will be obtained. This will make it possible to conduct qualitative monitoring processes. In addition, this information constitutes the starting point to conduct a psychometric validation of the tool in the desired population and context, which will also allow measuring personal outcomes (i.e., quantitative monitoring).

People interested in developing the QoLI-IE in their countries can take this chapter (and Chapter III) as a reference. The authors of the present report offer advice to anyone who needs it at aamor@usal.es.

# Chapter III: Psychometric validation of the Quality of Life Index for Inclusive Education (QoLI-IE). A step-by-step guide

#### 1. Introduction

The previous chapter has presented the process followed in Spain to provide with evidence of content validity to the items generated for the Quality of Life Index for Inclusive Education (QoLI-IE) that is being developed in Spain. This is the first step for the validation of the instrument. As a result of the delphi study, a pilot tool has been obtained, called QoLI-IE Pilot version, which will be calibrated through subsequent field work and psychometric validation. The goal of this chapter is to present a step-by-step guide on how to undertake the psychometric validation of the tool, so that it can be taken as an example in each country. Finally, a justification is presented on why having a dully calibrated tool is relevant for monitoring the European Child Guarantee (ECG).

## 2. The QoLI-IE Pilot version

First, it is necessary to clarify the structure and how to use the QoLI-IE Pilot version. Due to the characteristics of the target groups and the context of use, the QoLI-IE is a QoL assessment tool based on a "report of others" assessment approach. In the report of others, the tool is administered through a semi-structured interview by a qualified interviewer who knows the Schalock and Verdugo's QoL model (2002) and who is familiar with the tool and with the principles of educational and/or psychological interview. Said interview will be conducted with a professional or relative (informant) who must comply with two criteria without which they cannot act as informants. To provide information on the QoL of the person we want to assess (i.e.,

a student with the condition of interest enrolled in the relevant context, as has been explained in Chapter II), the informant must:

- a) Know the person whose QoL we want to assess for at least three months.
- b) Have had recent opportunities to observe the person in different vital contexts.

Regarding its structure, the QoLI-IE Pilot version has four sections: (a) identification data; (b) sociodemographic data; (c) general estimation of the QoL level of the person whose QoL is of interest; and (d) assessment scale. Each section is briefly described below.

- a) Identification data section. It allows registering the applications of the instrument that is being validated in compliance with Regulation (EU) 2016/679 (General Data Protection Regulation).
- b) Sociodemographic data section. All relevant information regarding the interviewer, the informant(s), and the person assessed must be registered. In relation to the latter, in addition to sociodemographic data, it is important to collect other clinical or educational variables to understand which personal and environmental factors are associated with better or worse QoL scores to take the best decisions when planning supports (e.g., for students with Intellectual and Developmental Disabilities (IDD), other relevant information can be the level of support needs).
- c) General estimation section. In this section, the interviewer asks the informant(s) to rate, from 1 to 5, what the QoL level of the person is for

- each QoL domain (the higher the score, the higher the estimated level). This section is important for validation and allows analysing how a preliminary view of QoL relates to that obtained through a detailed assessment using the items of the QoL assessment scale section.
- d) QoL assessment scale section. It includes the 96 items identified in the delphi study. These items are the ones that will be used by the interviewer to obtain information from the informant(s) about the student's QoL. Each item is rated on a four-point frequency rating scale from 1 = Never to 4 = Always. The task of the interviewer is to obtain the perceptions that the informant(s) has about the QoL of the person being assessed and score each item by selecting the response option that best reflects the opinion of the informant(s). Table 8 details the structure of the QoLI-IE Pilot version.

Table 8

Structure of the QoLI-IE Pilot version

Name of the section	Goal	Exemplary items	Response system
Identification data	To have a clear registration of participants always respecting anonymity.	ts always respecting Identification code of the	
Sociodemographic and other relevant data	To gather relevant information of the parts involved in the assessment.	Date of birth. Student's family income. Level of IQ of the student'.	Open- and close-ended questions.
General estimation of QoL level	To have an initial estimation of the QoL level of the person according to the informant, prior to conducting the indepth QoL assessment.	In your opinion, from 1 to 5, the overall satisfaction of the student regarding their emotional wellbeing is	Five-point rating scale: 1 = Low 2 = Mid-low 3 = Mid 4 = Mid-high 5 = High
QoL assessment scale	To obtain an in-depth knowledge of the students' QoL regarding the extent to which the QoL-related aspirations and needs described in the items are fulfilled.	People of the student's circle are informed about the resources of the community (e.g., social, health, and educational resources).	Four-point frequency rating scale: 1 = Never 2 = Sometimes 3 = Frequently 4 = Always

Note. ¹Remember that the items regarding "relevant data" are related to the group(s) in which the validation of the tool will be conducted (e.g., IQ level makes sense for students with IDD but, perhaps, it does not for Roma children).

Next, the necessary steps for the psychometric validation of the scale are succinctly described.

## 3. Steps to validate the QoL-IE Pilot version

## 3.1. Step 1: Guaranteeing ethical principles

Before starting any work that involves the access, collection, storage, treatment, and analysis of personal data, it is mandatory to ensure that the research complies with research ethic principles. There are different ethical declarations in different fields that establish essential ethical requirements (e.g., Declaration of Helsinki of 1964). Regardless of them, the ethical principles in the process of psychometric validation of an instrument always require, at a minimum:

- a) Counting with a clear data processing protocol that guarantees the anonymity of the participants.
- b) Having a good server that guarantees data protection.
- c) Informing the participants (by oral and written explanation) about the purpose of the instrument and the research, and about their rights and obligations as participants.
- d) Distributing and collecting signed informed consent forms.

This step is essential and neglecting it may result in legal liability. For this reason, apart from the requirements presented here, it is mandatory that those interested in undertaking the validation of the QoLI-IE contact Ethical Review Boards, send their research proposal, and wait until they receive green light.

#### 3.2. Step 2: Selection of participants

Next step is to define the participants that will constitute the validation sample, including the minimum sample size. Regarding the sample size, it is necessary to highlight that, given that the QoLI-IE follows a report of others approach, it is necessary to think in terms of the persons whose QoL we want to assess and not in terms of the informants. For example, in Spain, we must think about a minimum number of students with the

conditions of interest enrolled in primary general education, and not about how many informants we need (although during the pilot study and the validation we are going to interview informants).

The minimum sample size ensures that the sample represents the size of the target population. Different authors propose different formulas to obtain a minimum sample size. Although it is not the goal of this report to go through them, there are proposals that can be presented here, but they are not exempt from controversy (Muñiz and Fonseca-Pedrero, 2019). Some authors (e.g., Cochran, 1977) establish that, if the population size is unknown or > 100,000, the minimum sample size to reach through the validation is 385. Other authors claim that it is necessary to ensure 5-10 applications per item, or reach, at least, 200 participants (Ferrando and Angiano, 2010).

Beyond sample size, it is also necessary to think about sample representativeness. In other words, the sample must be as similar as possible to the population according to different variables (e.g., gender or types of disability). For example, in Spain, the number of boys with IDD enrolled in general primary education doubles the number of girls, hence the sample for validating the QoLI-IE must take into consideration this proportion.

Last, it is necessary to think about a sampling strategy. The desirable is to follow a stratified random sampling strategy, which is the one that guarantees the maximum level of representativeness, but it is very difficult to achieve due to the characteristics of the participants and schools. Therefore, incidental sampling that meets the criteria mentioned above is a common way to address this problem (Muñoz and Fonseca-Pedrero, 2019).

#### 3.3. Step 3: Pilot study

The following step requires accessing participants (between 60 and 80) with similar characteristics to those with whom we are going to work during the validation and carrying out a pilot study through the interviews to informants. Pilot studies seek to assess whether, in a sample similar to the one with which the tool will be

validated, the items are well understood and whether the instrument is working properly. This phase is very important, since it allows detecting, avoiding, and correcting potential errors at an early stage (Muñiz and Fonseca-Pedrero, 2019). These studies focus on analysing the quality of the items and performing preliminary analyses of validity and reliability. Reached this point, given the complexity of the analyses to conduct, we strongly recommend that the institutions focused on validating the QoLI-IE count with methodologists. The authors of the present report offer advice to those who are interested at aamor@usal.es

## 3.4. Step 4: Implementation of the instrument and analyses of its psychometric properties

Once the pilot study has been conducted and the potential biases have been corrected, it is time to access the sample and implement the QoLI-IE Pilot version to gather data and to validate the

instrument. After conducting the interviews, it is time to analyse the data to assess the quality of the items and the evidence of validity (i.e., if the tool really assesses QoL) and reliability (i.e., if the QoL assessment is accurate). Again, this is a complex issue that requires experts on methodology. Annexes I and II collect the main analyses to study the quality of the items and the evidence on validity and reliability, and interpretation foundations for each analysis.

### 3.5. How long does it take to develop and validate a standardised tool?

It is difficult to determine how long does it take a validation given the multiple factors involved. The following figure breaks down the steps explained in Chapters II and III with the average time estimation per stage and in total (around three years).

Phase of study and outcome	/ Task					T	rin	ies	ters	•			
	Task 1. Literature review	1	2	3	4	5	6	7	8	9	10	11	12
Development	Task 2. Literature selection	1	2	3	4	5	6	7	8	9	10	11	12
of the pilot	Task 3. Literature synthesis	1	2	3	4	5	6	7	8	9	10	11	12
version of the	Task 4. Development of initial pool of items	1	2	3	4	5	6	7	8	9	10	11	12
tool	Task 5. Items selection following Delphi study (and focal groups)	1	2	3	4	5	6	7	8	9	10	11	12
	Task 6. Development of pilot version	1	2	3	4	5	6	7	8	9	10	11	12
	Task 7. Application of the research to the bioethics committee for its approval	1	2	3	4	5	6	7	8	9	10	11	12
	Task 8. Contact with schools	1	2	3	4	5	6	7	8	9	10	11	12
	Task 9. Informed consent forms request	1	2	3	4	5	6	7	8	9	10	11	12
	Task 10. Application of the field-test version of the questionnaire	1	2	3	4	5	6	7	8	9	10	11	12
Davahamatria	Task 11. Pilot study	1	2	3	4	5	6	7	8	9	10	11	12
Psychometric validation	Task 12. Application of the revised field-test version of the questionnaire. If it has not been necessary to revise the pilot version, then continue working with the same version	1	2	3	4	5	6	7	8	9	10	11	12
	Task 13. Data curation	1	2	3	4	5	6	7	8	9	10	11	12
	Task 14. Analyses of items and analyses of evidence of validity and reliability	1	2	3	4	5	6	7	8	9	10	11	12
	Task 15. Developing final version of the instrument	1	2	3	4	5	6	7	8	9	10	11	12

Figure 2. Average timeline for developing and validating a QoL standardised measure

### 4. The QoLI-IE: Primary Education version

The result of these four steps is a dully calibrated standardised instrument that is ready for use to monitoring QoL from both a qualitative and a quantitative approach. The way of implementing the final version of the tool is the same than for the pilot version: report of others following a semi-structured interview.

The difference between the QoLI-IE Pilot version and the QoLI-IE Primary Education version is that the latter has been validated and it provides standardised information regarding the QoL of a

given person. By implementing the tool, beyond the uses for reflection purposes, it is possible to know if the QoL of the person assessed is high, average, or low compared to the age-peers who have the same condition(s) and participate in the same context(s). Another difference lies on the structure of the instrument, which is simpler for the final version. The following table describes each section of the QoLI-IE Primary Education version and the output of the measure that can be used for feed in QoL evidence-based decision-making:

#### Table 9

#### Technical information about the QoLI-IE: Primary Education version

Quality of Life Index for Inclusive Education: Primary Education version (technical characteristics once the validation process is finished)				
Goal and target population	QoL assessment of students with IDD, students with emotional concerns, students with learning difficulties, and students with challenging behaviours enrolled in primary general education in Spain.			
Assessment approach	Report of others following a semi-structured interview by a qualified interviewer.			
Time of implementation	30'.			
Structure (sections of the instrument)	Sociodemographic and clinical data. Includes sociodemographic questions regarding the interviewer, the informant(s), and the person being assessed + clinical and relevant variables regarding the target student.  QoL assessment scale. The standardised portion of the instrument. It will provide a QoL Index (general score) and QoL scores for each domain. It will include 10 items per domain, totalling 80 items. Frequency rating scale: 1 = never; 2 = Sometimes; 3 = Often; 4 = Always.			
Output of the measure	QoL Index (Mean = 100; Standard Deviation = 15) + Global percentile* for easy interpretation  Domains' Standard Scores (Mean = 10; Standard Deviation = 3) + percentile  QoL profile (i.e., visual representation of the Domains' Standard Scores).			

Note. \*Percentile is a score that indicates the % of population of the reference group who has lower QoL scores. For example, if a Spanish student with IDD enrolled in primary general education has obtained a percentile of 70 for emotional wellbeing, it means that the 70 % of students with IDD enrolled in primary general education in Spain has lower emotional wellbeing.

## 5. Is it always necessary to develop a standardised instrument from zero?

Chapters II and III have provided a methodological overview to design and validate the QoLI-IE starting from zero after identifying the key groups and context of action. Given that a typical validation requires three years, the logical question that arises is: Is it always mandatory to follow this process? Is there any alternative like, for example, adapting an alreadyexisting standardised instrument to a different culture and context? The answer is yes... if a series of guidelines are followed to ensure that the instrument is adapted well to the new context and culture. Annex III describes the 18 guidelines developed by the International Test Commission (ICT, 2017) on how to successfully translate and adapt a test to a context different than the original. Those administrations that, instead of developing their own QoLI-IE from the beginning prefer to wait for the tool to be validated in another context (e.g., Spain), can follow them. Support and advise to address this can be found at: aamor@usal.es.

## 6. The importance of having validated indicators and instruments for monitoring purposes

'What is not defined, cannot be measured; what is not measured, cannot be changed'. With this quote, we illustrate the importance of moving from values to well-defined conceptual aspects and, above all, to observable elements that can be monitored and improved. Having dully calibrated QoL tools is the best way to monitor the educational areas of the ECG and, by extension, for the ongoing improvement of inclusive education (IE) and the QoL of the students.

The usefulness of the QoLI-IE regarding the ECG can be considered from two points of view: (a) monitoring for those countries that have already defined their Child Guarantee national action plans; and (b) starting point for the definition of the Child Guarantee national action plans for those countries that have not defined yet their frameworks.

- a) Countries that have already defined their national plans. The use of the QoLI-IE items is the best way to verify if the educational aspirations and needs of their students are being covered. To do this, each student in need can be assessed individually and it is possible to analyse which items are met and which are not, and define improvement strategies accordingly. In short, these countries will find in the QoLI-IE a clarifying instrument to put themselves in front of the mirror of IE to see what their plans are achieving and what not. What they are not achieving is the critical point: this information should lead countries to revise their national action plans. Next chapter provides a detailed explanation on how to assess students and what to do with disaggregated and aggregated data on personal outcomes to inform decision-making regarding students, schools, and social policies and initiatives such as the ECG. Thanks to this, national action plans concerning the ECG can be monitored and improved from different system levels.
- b) Countries that are still defining their Child Guarantee national action plans. The QoLI-IE items and indicators are useful to operationalise the educational areas of their national plans because they highlight the key outcomes to achieve in their vulnerable students through a quality IE. Once these plans are implemented, they can be monitored (and improved) by means of the QoLI-IE (see Chapter IV)

### 7. Summary and Conclusions

This chapter has provided guidance for the QoLI-IE validation. This type of work responds to rigorous planning that needs time and a well-articulated series of steps. The use of the validated instrument can help for monitoring purposes regarding the ECG from different levels of the social system (see chapter IV for detailed examples). Beyond monitoring, the indicators and items can help in the definition of the educational areas of the Child Guarantee national plans, something especially relevant for those countries that are still developing their plans.

#### Table 10

#### **Highlights of Chapter III**

Validating QoL instruments requires a series of steps: (a) guaranteeing ethical principles; (b) access to participants; (c) conducting a pilot study; and (d) implementation of the instrument and its subsequent validation.

Once the instrument is validated, it can be used for monitoring purposes. Monitoring will provide evidence on the extent to which the QoL-related aspirations and needs of the target students are covered (or not) in the context of interest. This information can be analysed as disaggregated or as aggregated data and feeds enhancement strategies regarding students, schools, and social policies and initiatives.

Given that the validation of QoL instruments starts from the identification of vulnerable populations and contexts, having dully calibrated QoL instruments also helps to define Child Guarantee national action plans. This is so because they provide the key aspirations and needs related to education that administrations and policy makers must pay attention to if they want to provide an education that enhances access, participation, learning and development of their students to their fullest potential.

## Chapter IV: How to monitor the European Child Guarantee (ECG) using the Quality of Life Index for Inclusive Education (QoLI-IE)

#### 1. Introduction

This chapter presents a brief guide on how to use the Quality of Life Index for Inclusive Education (QoLI-IE) for monitoring purposes regarding the educational areas of the European Child Guarantee (ECG). The chapter starts with an example of the implementation of the QoLI-IE: Primary Education version to provide the policymakers with knowledge on how to interpret the outputs of a standardised QoL measure. Based on this knowledge, the chapter presents how to monitor the educational areas of the ECG from both a qualitative and a quantitative approach, and how to use the evidence gathered using the QoLI-IE to support educational decision-making regarding students, schools, and the Child Guarantee. For those countries that are still developing their national action plans, the chapter provides an overview on how to use the QoLI-IE items to guide the development of such plans. The chapter ends with a series of recommendations to the EU policymakers on how to establish a framework to facilitate the national process to feed in the European framework to monitor the Child Guarantee.

### 2. Interpreting the QoLI-IE: Primary Education version

In this section, a brief interpretation guide to understand the scores obtained through the QoLI-IE: Primary Education version is provided. The following table presents the summary of the scores obtained by a 10 years-old boy with Down Syndrome who attends to a general education school in a rural part of Spain. The profile (Figure 3) depicts such scores in a visual impression.



Table 11

## \*Scores obtained by the 10 years-old student in the QoLI-IE: Primary Education version

QoL domain	Domain's Standard Score	Domain's Percentile	QoL Index (global percentile)
Emotional wellbeing	10	50	
Material wellbeing	11	63	
Physical wellbeing	9	37	
Personal development	11	63	.0. (50)
Self-determination	11	63	101 (52)
Social inclusion	8	25	
Interpersonal relations	9	37	
Rights	10	50	

Note. \*Scores represent a fictitious example whose goal is to help the reader understand how to make an interpretation of the relevant QoL scores that are obtained using standardised QoL assessment instruments like the QoLI-IE.



**Figure 3.** Student's QoL profile. Scores represent the Domains' Percentiles. Note. EW = Emotional wellbeing; MW = Material wellbeing; PW = Physical wellbeing; PD = Personal development; SD = Self-determination; SI = Social inclusion; IR = Interpersonal relations; RI = Rights

The first thing to consider when it comes to interpret the QoL scores is how the overall QoL of the person is. To answer this question, it is necessary to look at the QoL Index and the accompanying global percentile. As can be seen in Table 11, for the case of our student, his general QoL can be regarded as average compared to his reference group (i.e., other students with intellectual and developmental disabilities enrolled in primary general education in Spain). However, the general QoL score is not operative because

it does not provide relevant information to feed decision-making regarding, for example, supports to implement with the student.

Domains' Standard Scores are much more attractive for this purpose. They give information regarding the QoL-related educational aspirations and needs that are not being covered in the student and, given the indicators' sensitivity to the four goals of inclusive education (IE) (i.e., access, participation, learning, and development of students to their fullest potential), the scores also mirror those IE outcomes that are not being addressed in the student. In this case, apart from physical wellbeing, the lowest scores are for the social inclusion and interpersonal relations domains. On the other hand, the highest scores are on personal development and self-determination. If one aligns these domains with the IE goals, participation is the goal that, apparently, is suffering the most, while access to and learning from the curriculum seem to be covered correctly, because the personal development and self-determination domains are fairly above the mean (for a detailed alignment between QoL domains and IE goals go to section 3.1 of Chapter I). Therefore, these scores suggest the need to plan for participation supports with the student. The question to address now is: how to direct these supports? It is necessary to analyse the different items for these two domains to see the specific aspirations and needs that are "problematic" and plan consequently, always involving all relevant stakeholders. The profile does not give additional information to that provided by the Domains' Standard Scores, but this information is easier to interpret, and is especially interesting when comparing two or more profiles (see examples in 3.2).

## 3. How to use it the QoLI-IE for monitoring purposes within the Child Guarantee?

Using the QoLI-IE for monitoring purposes regarding the Child Guarantee only can be focused on the educational areas: early childhood education and care, and education (including

school-based activities). The reason for this is simple: QoL indicators and items are sensitive not only to the characteristics of groups, but also to the characteristics of the contexts. Therefore, given that the QoLI-IE has been developed for educational contexts, it makes no sense (and it would not be ethically correct) using it in other areas within the ECG. Having this clear, it is time to understand how to proceed with the qualitative and the quantitative monitoring and, most important, how to use the information gathered using the QoLI-IE to develop improvement strategies regarding the ECG.

#### 3.1. Qualitative monitoring

Qualitative monitoring has been presented in Chapter I of this report. Therefore, no further explanation will be provided. Those interested in a detailed explanation on how to accomplish a qualitative monitoring of IE using the QoLI-IE can go to EASPD (2020a). This subsection, however, has been created to help the reader understand that a twofold monitoring approach will always be preferable than relying only on a single approach, no matter whether this is qualitative or quantitative. It is necessary to remember that qualitative and quantitative monitoring are complementary, and that the idea is to complement the quantitative findings with a qualitative reflection on what has been found. This is essential to understand what lies behind the data.

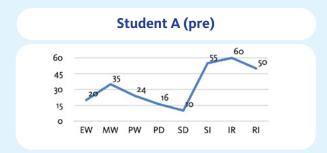
#### 3.2. Quantitative monitoring

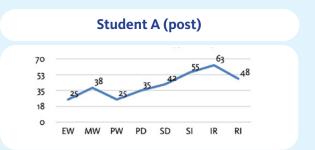
Quantitative monitoring requires dully calibrated standardised instruments (developed as shown in Chapters II and III) that, beyond qualitative reflections, allows measuring personal outcomes to support decision-making based on the QoL aspirations and needs of the students. The quantitative monitoring, no matter the level of the social system one is focused on, must always start from individual assessments. The resulting evidence regarding personal outcomes can be used as disaggregated or aggregated data.

#### 3.2.1. Uses of the evidence on personal outcomes as disaggregated data

The focus must be placed on students at individual level. In this case, it is necessary to assess the students with the condition(s) of interest in the relevant context(s) using the standardised instrument. Thanks to the scores yielded by the instrument, professionals obtain a measure of the student's QoL aspirations and needs in the eight QoL domains. The next step consists in aligning the domains with the four IE goals. This information is a valuable input not only to understand the status of

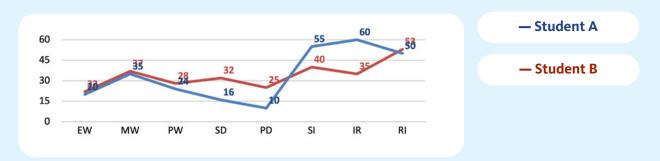
IE -which, in turn, mirrors what the Child Guarantee national action plan is achieving at student level-, but also to define goals and to arrange and implement supports to meet the student's aspirations and needs. Once the supports have been implemented, it is possible to assess the student again to see if the supports implemented have translated into an improvement of the student's QoL (and it is necessary to align the scores again with IE goals to see what happens regarding IE) (Figure 4).





**Figure 4**. QoL profiles showing pre-post intervention for a single student (scores show percentiles). As can be seen, SD domain (linked to learning and maximum development) has been increased because of the intervention. Note. EW = Emotional wellbeing; MW = Material wellbeing; PW = Physical wellbeing; PD = Personal development; SD = Self-determination; SI = Social inclusion; IR = Interpersonal relations; RI = Rights

To continue with the use of disaggregated data, it is possible to compare two or more students who attend to the same classroom or school because their scores are on a same metric. This is the main advantage of standardised instruments. In this case, it is possible to compare their QoL profiles and see, for example, for which areas, a student A has worse or better QoL than a student B (always aligning domains and IE goals). Beyond supports planning, this information is useful to enhance resources allocation based on the QoL-related needs and aspirations of the students and not on labels (see Figure 5).



**Figure 5.** QoL profiles comparing QoL percentiles of two students attending to the same school. Given that QoL scores for Student B are significantly lower for IR domain, resources and supports concerning this area should be prioritised for this student. Note. EW = Emotional wellbeing; MW = Material wellbeing; PW = Physical wellbeing; PD = Personal development; SD = Self-determination; SI = Social inclusion; IR = Interpersonal relations; RI = Rights

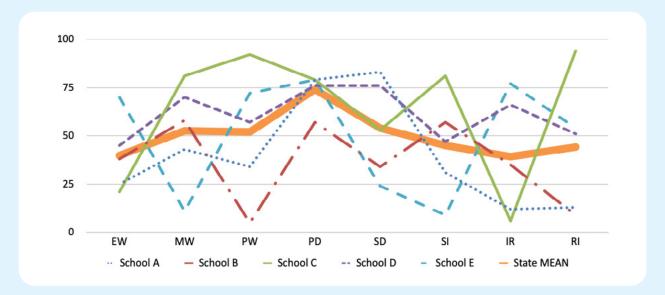
#### 3.2.2. Uses of the evidence on personal outcomes as aggregated data

In this case, one does not focus on individual scores but on the mean values of the individual assessments. Using aggregated data entails putting the focus of the monitoring and decision-making, simultaneously, on schools and their communities (mesosystem), and on social policies and initiatives/strategies such as the Child Guarantee (macrosystem).

Regarding school level, it is necessary to examine the QoL trend for each domain identifying those that are in a worse shape for a given school, and align it with the IE goals. This information mirrors the general status of the school regarding access, participation, learning, and development of students to their fullest potential, and it also sheds lights on how the Child Guarantee is getting translated at school level, because schools are responsible for translating social initiatives into educational policies, cultures, and practices that directly affect their students. Reached this point, it is necessary to share a qualitative reflection on which barriers may be hindering the QoL-related aspirations and needs of the students to generate and implement an effective plan. Once this qualitative and quantitative input is summarised, then it is time to implement enhancement strategies that update school's policies, practices, and cultures to meet those aspirations and needs that are not currently being covered. Thanks to the standardised nature of the QoLI-IE, it is possible to compare a school with itself in two different moments to see if the new plans have produced an improvement of their students' QoL. It is also possible to compare the schools of a given community and share strategies for the QoL improvement. The rationale given in Figures 4 and 5 help to understand this. The only difference is that, while for Figures 4 and 5 scores reflect individual outcomes, for this case, scores reflect mean values (obtained through the individual assessment of all the students with the condition(s) of interest attending to the schools of the community). It is even possible to compare the QoL profile obtained by a single student with the school's QoL profile, which is essential to understand the relative requirements

of the student in relation to the school (i.e., microsystem-mesosystem comparisons)

Last, regarding region/state/country level (macrosystem), the rationale is the same as for the school level, but the trends are even more general, and requires using the mean values of the individual assessments at regional, state, or national level. These trends mirror what happens at the most general level and gives information to feed improvement strategies to update social initiatives and policies like the Child Guarantee. For these cases, the domains with a worse functioning (and the related IE goals) suggest what needs to be changed, and policy makers, after analysing the data, will have a clear target on what to improve regarding their action plans. Moreover, parallel qualitative reflections using the QoLI-IE items are useful to identify the actions to implement to achieve the targets to improve the plans (e.g., policy makers can contact local authorities and schools' principals and discuss potential barriers that may underlie the results, and plan for enhancement strategies). As it has been mentioned for the mesosystem level, it is possible to conduct a comparison between mesosystem and macrosystem. In this case, the comparison would not be just between the schools of a same community. It would involve a comparison between all the schools of a given region/state/country, and the comparison would also include the region/state/country QoL profile. This would give a complete picture on how the national action plan is getting translated under a general overview, and the comparative needs of the schools under a broader perspective. Regarding QoL and IE, a comparison microsystem-mesosystem-macrosystem would not make a lot of sense because the personal outcomes of the students would be more influenced by the most immediate social systems (i.e., micro- and mesosystem, although macrosystem would influence indirectly). Figure 6 presents a comparison of mesosystem vs. macrosystem.



**Figure 6.** QoL comparison between mesosystem and macrosystem (thick line). Note. EW = Emotional wellbeing; MW = Material wellbeing; PW = Physical wellbeing; PD = Personal development; SD = Self-determination; SI = Social inclusion; IR = Interpersonal relations; RI = Rights

## 3.3. Uses of the QoLI-IE for developing Child Guarantee national action plans

For those countries that have not developed their own Child Guarantee national action plans yet, the QoL framework and instruments like the QoLI-IE can help them in this task. They first need to identity the target group(s) and context(s) that they consider most relevant, and then validate indicators and items regarding their content for these groups and contexts (as shown in Chapter II). With this information, while they continue with the validation process of the QoLI-IE, they can create their national action plans with a clear end in mind: what to achieve in their students and how this is related to their access, participation, learning, and development to their fullest potential. Once the national action plans have been developed, the uses of the monitoring approach presented in the previous sections is useful to analyse disaggregated and aggregated data concerning students, schools, and the own action plan.



## 4. A framework proposal to facilitate the national process to feed in the European framework to monitor the ECG

This section provides a series of recommendations on how to establish a framework to facilitate the national action process to feed in the European framework to monitoring the ECG. For the shake of clarity, this section provides straight bullet points that are ordered consecutively (i.e., one leads to the following). These recommendations consider that the EU countries have already developed their national action plans:

- Think in terms of operationalisation: 'what is not defined, cannot be measured; what is not measured, cannot be improved'.
- 2. **Define what IE should achieve in all students.**Art. 24 of the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD; United Nation, 2006) may help in identifying critical outcomes to achieve in your students and the context in which IE should be delivered.
- 3. Choose a framework that can direct your efforts towards these goals. The QoL model (Schalock and Verdugo, 2002) offers a framework that has relevant conceptual and applied implications. The model does not only provide a conceptual basis to understand what QoL is. It also offers a scientifically validated applied framework. This framework allows measuring personal outcomes in a series of vital domains that are aligned with the rights embodied in the UNCRPD and offers a systems perspective to use the evidence gathered to feed in improvement strategies regarding individuals, schools, and policies.
- 4. Develop and validate instruments that allow you to implement the QoL model in practice. The EASPD has proposed the QoLI-IE as an example of instrument that makes it possible. Follow the methodological approach described in Chapters II and III to develop your own QoLI-IE. Remember, this is a task that has a series of steps and that requires identifying the target group(s) and context(s) to work with, and the validation of QoL indicators and items for said groups and contexts, a pilot study, and the development of a standardised instrument.
- 5. Now is time to **monitoring** the educational

- areas of your national action plans. Systematise the assessment of the group(s) of interest in the relevant context(s) using the QoLI-IE. Assessments must be at individual level.
- 6. Gather information regarding your students' QoL and align it with the IE goals.
- 7. Once you have this input, think in terms of systems perspective. What is your focus? Will you focus on monitoring, or will you implement enhancement strategies? Irrespective of your goal, the first thing to have clear is the level of the social system in which you wish to operate: microsystem with the students; mesosystem with schools; or macrosystem regarding social policies.
- 8. If your focus is only on monitoring, then store the data regarding individual assessments as both disaggregated (microsystem) and aggregated data (meso- and macrosystem). You may wish to share your macrosystem data with other EU countries that are also involved in the monitoring of their Child Guarantee national action plans. If the same framework (QoL) and tool (QoLI-IE) are followed, then EU framework for monitoring can be fed with national frameworks, to see what happens at EU level.
- If, beyond monitoring, the focus is on developing enhancement strategies, then plan for strategies at micro-, meso-, and macrosystem levels. Don't forget to align QoL domains with IE goals.
- 10. Implement the enhancement strategies at each level.
- 11. Start the process again and test for changes. If changes have been positive, you can share your experience and your strategies at EU level. Although each context is different, this information is always valuable, and other countries may benefit of it.

For the countries that have not finished their own national action plans yet, the process to follow would be the same. For these cases, remember, it is possible to use the QoLI-IE indicators and items to define your national action plans. Once the plan has been developed, then monitoring should follow steps 5-11.

### 5. Summary and Conclusions

This chapter has presented a guide on how to use the QoLI-IE for monitoring purposes regarding the educational areas of the ECG, how to use the evidence gathered using the QoLI-IE to support educational decision-making regarding different levels, and a series of recommendations to the EU policymakers on how to establish a framework to facilitate the national process to feed in the European framework to monitor the Child Guarantee.

#### Table 12.

#### **Highlights of Chapter IV**

Using the QoLI-IE for monitoring purposes regarding the ECG only makes sense for the ECG's educational areas.

Monitoring should start from individual QoL assessments and incorporate both qualitative and quantitative approaches.

The QoL data obtained must be aligned with the four IE goals. Information on personal outcomes can be used as disaggregated or aggregated data, depending on the focus of the assessment and enhancement strategies.

For those countries that have not finished the development of their national actions plans regarding the Child Guarantee, the indicators and items of the Qo-LI-IE can help them to finish this task by providing a clear end in mind to achieve.

If a series of consecutive recommendations are followed, it is possible to use the national monitoring to feed in the European monitoring of the ECG.

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### **Annexes**

Annex I. Goal of items analyses and criteria to determine their quality (adapted from Fernández, 2019)

Goal	Criteria to consider	Interpretation foundation
To select a manageable, maximum number of items per QoL domain that have the best properties (e.g., 8 items per QoL domain)	The mean value of the scores for each of the items and their standard deviation	Items with a mean higher than 2.5 (the items score range from 1 to 4) should be discarded to decrease ceiling effect. Likewise, items with an excessively low standard deviation should be removed
	The number of missing data	To see the number of missing data for each item, and eliminate items with a large amount of missing data
	The corrected homogeneity indexes	This statistical index helps to understand the contribution of each item to the domain to which it belongs. It is calculated through the Pearson correlation coefficient. Items with correlation below 0.30 should be eliminated
	The distribution of the responses	To study the distribution of responses to avoid the answers accumulating in one or two response options instead of being distributed normally
	The content of the items	To see the meaning of the items and to eliminate items duplicated in meaning and content (i.e., if two items mean more or less the same and belong to the same indicator, to eliminate that item with worse psychometric properties)

**Annex II**. Information regarding validity and reliability in validation studies (adapted from AERA et al., 2014; Prieto and Delgado, 2010; Thompson et al., 2018)

Property	Source	Interpretation foundations
	Internal consistency reliability: Extent to which the items correlate with one another.	Strong correlations indicate that an assessment scale's items have a robust relationship with one another and are, therefore, measuring different aspects of the same construct
Reliability: Consistency or stability of measurements	Split half reliability: Linear relationship between half of the items on a scale with the other half	A high correlation between the two halves suggests that items on the scale are measuring the same construct
when the measurement process is repeated	Test-retest reliability: Evaluates the consistency of a scale score over short periods of time	Strong correlations between scores from two separate and in- dependent administrations completed following the same con- ditions at different time points suggest that the construct being assessed is stable
	Interrater reliability: Consistency of scale scores across assessors	If two separate and independent administrations of an assessment involve different assessors and the correlations found between the two administrations are high, then the outcomes of the measure are trustworthy regardless of the administrator
	Evidence based on content: The extent to which the items on an assessment adequately represent the universe of items that could be associated with the construct of interest	Content validity should be established when the measure is developed, when subscales are conceptualised, and items are written. Foundations are provided in section 3.3.
Validity: Refers to the degree	Evidence based on internal structure: The degree to which the relationships between test items and test components conform to the construct on which the proposed interpretations of test scores are based	Support for a standardised instrument's internal structure comes from research findings that demonstrate a strong relationship between the construct being measured and an assessment scale's test items and the subscale scores. Statistical analyses revealing that the items share variance in ways that match the defined construct reflect positively on an instrument's internal structure.
to which evidence and theory support interpretations of test scores for intended uses of the tests.	Evidence based on relation to other variables: The extent to which test-derived scores are related to measures of other variables that are theoretically associated (directly or inversely) with the construct assessed by the test	Evidence based on relation to other variables is established by collecting data that show that constructs that theoretically should be related are, in fact, related. The expected relationships may be of different types. For example, the traditionally called "convergent validity" focuses on convergent relationships. Convergent evidence provides support that a measure is correlated with other variables that claim to measure the same (or a similar) construct. Conversely, evidence on discriminate validity is established when gathering evidence that show that constructs that theoretically should have no relationship with one another, in fact, have low correlations. In some cases, the instrument may be designed to predict a future characteristic or behaviour. The test-criterion relationship may be assessed at the same time (concurrent), for example, by comparing two key groups that the instrument should identify as different, or by assessing the relationship of the instrument to a variable assessed at a later time (predictive).
	External validity: Refers to the extent to which results from a study using the tool can be generalised to other settings and people	It is important to assess the extent to which the scores obtained through the implementation of said instrument maintain evidence of good validity and reliability when applied to other settings and people, or in other countries and languages.

Annex III. ICT Guidelines for translating and adapting tests (ICT, 2017, pp. 36-38\*)

Stage of development	Guideline
Pre-condition guidelines	PC-1 (1) Obtain the necessary permissions from the holder of the intellectual property rights relating to the test before carrying out any adaptation
	PC-2 Evaluate that the amount of overlap in the definition and content of the construct measured by the test in the population of interest is sufficient for the intended use(s) of the scores
	PC-3 (3) Minimise the influence of any cultural and linguistic differences that are irrelevant to the intended uses of the tests in the populations of interest
Test development guidelines	TD-1 (4) Ensure that the adaptation process considers linguistic, psychological, and cultural differences in the intended populations through the choice of experts with relevant expertise
	TD-2 (5) Use appropriate translation designs and procedures to maximise the suitability of the test adaptation in the intended populations $\frac{1}{2}$
	TD-3 (6) Provide evidence that the test instructions and item content have similar meaning for all intended populations
	TD-4 (7) Provide evidence that the item formats, rating scales, scoring categories, test conventions, modes of administration, and other procedures are suitable for all intended populations
	TD-5 (8) Collect pilot data on the adapted test to enable item analysis, reliability analyses and other small-scale validity studies, so that necessary revisions to the adapted test can be made
Confirmation guidelines	C-1 (9) Select sample with characteristics that are relevant for the intended use of the test and of sufficient size and relevance for the empirical analyses
	C-2 (10) Provide relevant statistical evidence about the construct equivalence, method equivalence, and item equivalence for all intended populations
	C-3 (11) Provide evidence supporting the norms, reliability and validity of the adapted version of the test in the intended populations
	C-4 (12) Use an appropriate equating design and data analysis procedures when linking score scales from different language versions of a test
Administration guidelines	A-1 (13) Prepare administration materials and instructions to minimise any culture- and language-related problems that are caused by administration procedures and response modes that can affect the validity of the inferences drawn from the scores
	A-2 (14) Specify testing conditions that should be followed closely in all populations of interest
Score Scales and Interpretation Guidelines	SSI-1 (15) Interpret any group score differences with reference to all relevant available information
	SSI-2 (16) Only compare scores across populations when the level of invariance has been established on the scale on which scores are reported
Documentation Guidelines	Doc-1 (17) Provide technical documentation of any changes, including an account of the evidence obtained to support equivalence, when a test is adapted for use in another population
	Doc-2 (18) Provide documentation for tests users that will support good practice in the use of an adapted test with people in the context of the new population

Note. \*Each guideline is explained in detail, and recommendations are provided in the whole document by the ICT (2017)

**EASPD** is the European Association of Service providers for Persons with Disabilities. We are a European not-forprofit organisation representing over 20,000 social services and disability organisations across Europe. The main objective of **EASPD** is to promote equal opportunities for people with disabilities through effective and high-quality service systems.



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