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QUALIMENTARY

IMPLEMENTATION OF QUALITY DEVELOPMENT PROCESSES
IN EARLY EDUCATION AND CARE INSTITUTIONS

IO3 - Digital Self Assessment Tool

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1. Introduction

Based on international results of the on-site quality measurements in the participating early childhood institutions, a digital self-assessment and evaluation tool was further developed and translated into the respective project languages (English, Hungarian, Slovenian, Italian, Portuguese).

The tool enables educational professionals to independently assess the quality attained based on certain criteria, as well as to identify strengths and weaknesses in their own practice. This means that early childhood specialists have a good, scientific basis to work on their own quality (focus: interaction quality) – also after the project.

At the same time, this tool can offer managers, specialist advisors, or trainers valuable support to record interaction quality with evidence-based indicators. The tool serves to ascertain attained quality based on certain criteria and to highlight both strengths and weaknesses. Moreover, the tool allows to work on quality in various settings including those abroad. The aim is to provide educational professionals with an instrument whereby they can work on site on the quality attained in their group, guided by criteria.

The instrument offers a further application as the start of a quality development process, and supports the adaptation of the modular advanced training to one's own needs. In turn, the tool allows the design of a circular quality management process. The digital self-assessment and evaluation can be used both at the beginning of a quality development and assurance process – to analyse the situation or the status quo in the facilities – and/or at the end of this process as a tool for securing results.

2. Self-evaluations in early childhood and care facilities

For pre-school children, the participation in early childhood education and care (ECEC) has become the norm in many countries (Laughlin, 2013). Numerous international studies evidence that poor quality early childhood facilities can have a negative impact on the development of children with different socio-demographic backgrounds. Therefore, high-quality early childhood and care facilities have a positive effect on the cognitive, physical and socio-emotional development of children (Manning et al., 2017).

Moreover, several international longitudinal studies show that high-quality interactions between educational professionals and children are essential for positive development (Manning et al., 2017). According to commonly used classifications, interaction quality is assigned to the "process quality" dimension. This, however, proves harder to assess than – for example – structural quality (rooms, equipment, etc.). In recent years, numerous international studies have focused on the quality of interaction between educational professionals and children. This interest stems from fundamental theories of developmental psychology (e.g., attachment theory, zone of next development) (Brunsek et al., 2017).

The field, in response to the relevance of educational quality for the development of children in child education and care institutions, finds it challenging to define the construct "quality" and its measurement in scientific terms. In recent years, numerous instruments for determining educational quality have been developed in the international and national area. Initiatives aim to improve quality in practice and, in this context, to create optimal development conditions for children (Halle et al., 2010; La Paro et al., 2012). Most of the quality measurement instruments developed are based on surveys or observations by educational professionals (Ishimine & Tayler, 2014). Criteria-related self-assessments – where information about one's own performance is provided with explicitly defined criteria, goals or standards – are primarily available in teacher training (Andrade & Valtcheva, 2009; Boud, 2013), but are still rather underrepresented in work with early childhood education specialists. With a view to securing or improving interactions between educational professionals and children, it is particularly relevant to use the measures adopted for educational quality not only as quality benchmarks, but also for the professional development of educational professionals. Individual feedback can be helpful for early childhood education specialists to rethink their own actions and reflect on their own practice based on certain criteria(Ishimine & Tayler, 2014).

Further to external evaluations, self-evaluation tools offer many advantages to educational professionals. The terms "self-evaluation" and "self-assessment" are mostly used synonymously in the literature and have been an important part of the training and further education of educational professionals for decades. Boud (2013) in his work "Enhancing Learning Through Self-assessment", [..] assumed that self-evaluation is an important part of a lifelong experience. In educational professions, therefore, it is particularly important to develop the ability to realistically assess one's own performance, as a way to celebrate successes and bridge knowledge and action gaps. The ability to observe and to modify one's own strategies is essential for effective further development in a professional context. This process, succinctly defined as "metacognition," is an important part of cognitive learning theories.

International research in teacher training indicates that self-evaluations were rated as valuable by prospective specialists. In their article, Andrade & Valtcheva (2009) describe that students found self-evaluation tools difficult and painful at the beginning, but the more they used them in their work, the more positive their attitude towards the tool became. Criteria-based self-evaluation tools in particular

were rated as extremely helpful for one's own work, which were used to check one's own progress and to support reflection.

3. GrazIAS~Basis~ – Self-evaluation tool

Every day, early childhood specialists face the challenge of creating an excellent everyday life – namely a development-promoting environment where children feel at ease. This must be the basis regardless of your personal motivation. To do this, you need certain operational skills In turn, these involve an interplay of knowledge, didactic implementation, attitude and reflection processes. With the knowledge and didactic skills, educational specialists plan everyday life in the long and medium term and design the learning environment for the children's group, or for individual children with active phases and quiet activities. Active observation results in situational adjustments and offers that favour development. Cyclical reflection processes in the team or on oneself complement the cycle (Petritsch & Walter-Laager, 2021).

The GrazIAS self-evaluation tool describes aspects of good interaction quality using 14 features (10 features for the 0-3-year group and 12 features for the 3–6-year group, see Figure 1). These are scientifically proven indicators that contribute to a successful interaction and are described as scientific texts and illustrated with videographed examples (Walter-Laager, Pölzl-Stefanec, Gimplinger & Mittischek, 2018).

To properly interact, the educational specialist must be physically and psychologically present, because this is the only way to perceive and interpret signals, such as individual needs and the setting of appropriate impulses. The children's well-being grows when they enjoy stable, positive relationships and their emotions are perceived and co-regulated. Participation in everyday life supports self-efficacy and meaningful rules ensure good cooperation. Everyday life is permeated by communication and sensual experiences.
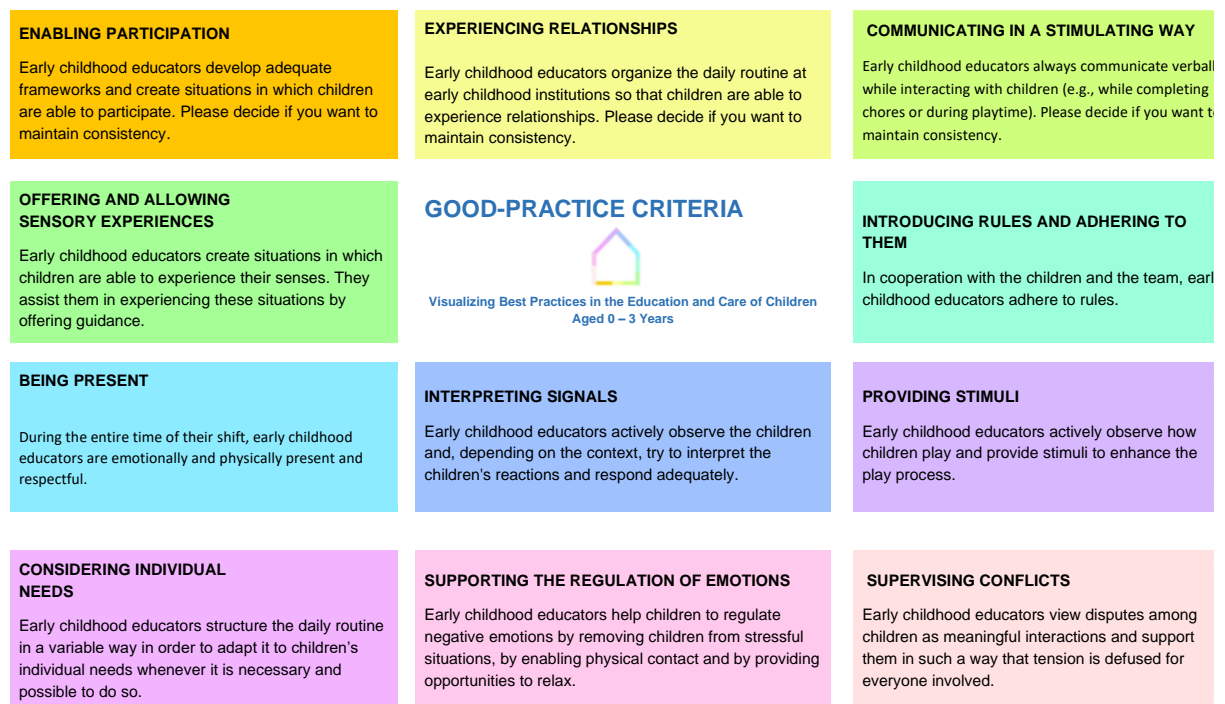
ENABLING PARTICIPATION

Early childhood educators develop adequate frameworks and create situations in which children are able to participate. Please decide if you want to maintain consistency.

EXPERIENCING RELATIONSHIPS

Early childhood educators organize the daily routine at early childhood institutions so that children are able to experience relationships. Please decide if you want to maintain consistency.

COMMUNICATING IN A STIMULATING WAY

Early childhood educators always communicate verball while interacting with children (e.g., while completing chores or during playtime). Please decide if you want to maintain consistency.

OFFERING AND ALLOWING SENSORY EXPERIENCES

Early childhood educators create situations in which children are able to experience their senses. They assist them in experiencing these situations by offering guidance.

GOOD-PRACTICE CRITERIA

Visualizing Best Practices in the Education and Care of Children Aged 0 – 3 Years

INTRODUCING RULES AND ADHERING TO THEM

In cooperation with the children and the team, earl childhood educators adhere to rules.

BEING PRESENT

During the entire time of their shift, early childhood educators are emotionally and physically present and respectful.

INTERPRETING SIGNALS

Early childhood educators actively observe the children and, depending on the context, try to interpret the children's reactions and respond adequately.

PROVIDING STIMULI

Early childhood educators actively observe how children play and provide stimuli to enhance the play process.

CONSIDERING INDIVIDUAL NEEDS

Early childhood educators structure the daily routine in a variable way in order to adapt it to children's individual needs whenever it is necessary and possible to do so.

SUPPORTING THE REGULATION OF EMOTIONS

Early childhood educators help children to regulate negative emotions by removing children from stressful situations, by enabling physical contact and by providing opportunities to relax.

SUPERVISING CONFLICTS

Early childhood educators view disputes among children as meaningful interactions and support them in such a way that tension is defused for everyone involved.

Figure 1 GrazIAS self-assessment – Feature overview

Good practice features have been operationalised (Figure 1 shows GrazIAS$_{Basis}$ feature set) and each feature contains between two and seven aspects. For example, there are two aspects to the "*Being present*" feature: *emotional availability* and *appreciation*. Each aspect is assessed on four levels. These four quality levels (1 – inadequate to 7 – excellent) have been formulated and answered with yes or no. In the practical implementation, target groups (by children's age) are queried after logging in, some information about the location is provided, and then the self-assessment begins.

The digital, web-based tool allows the generation of an automated output after filling out the form. Besides information on the level attained, this also provides theoretical inputs and thus stimulates further development. There are also open educational resources[1] available. The self-assessment tool offers the opportunity to reflect on one's own actions, celebrate successful interactions, and identify potential for further development.

The self-assessment is a multilingual instrument whose technical implementation makes the introduction of additional languages very simple. The Qualimentary project financed the development and added the languages Italian, Portuguese, Slovenian and Hungarian.

4. Participants' feedback

After taking the advanced training during the project and completing the GrazIAS self-evaluation tool, 46 people from Germany, Austria, Slovenia, Hungary and Portugal took part in an online survey regarding the self-evaluation tool. Out of the 46 people, 29 work in the kindergarten, 14 in the day nursery, and 3 in age-extended groups, and have between one year and 20 years of professional experience in the early childhood field (see Figure 2).
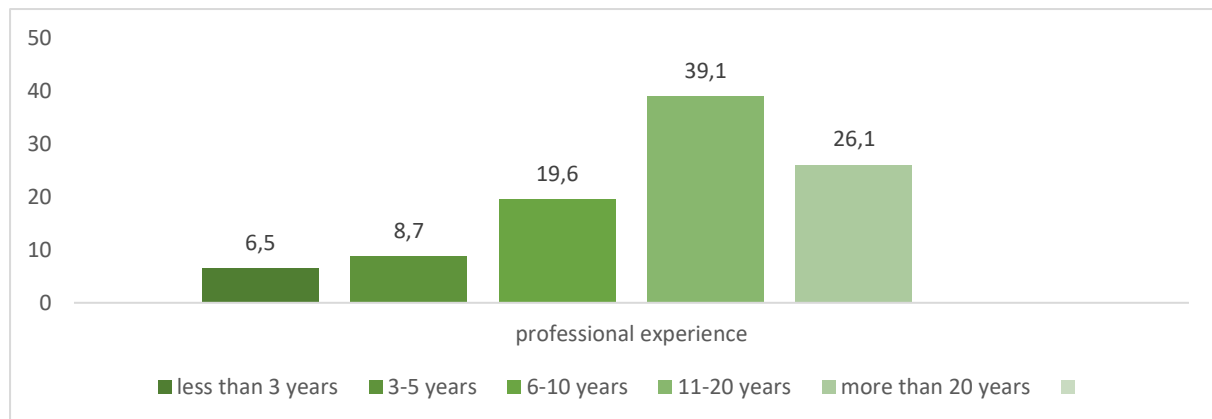

Figure 2 Professional experience, educational specialists, figures in percent (%)

Almost 90% of the people questioned (*M = 1.70* ; *SD* = 0.726, Figure 3) agreed or rather agreed that the self-evaluation tool was helpful for their self-assessment at the end of their training.

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[1] Visualizing Best Practices in the Education and Care of Children Aged 0 – 3 Years & 10 Steps to a Reflected and Daily Integrated Linguistic Education & Videos with English subtitles
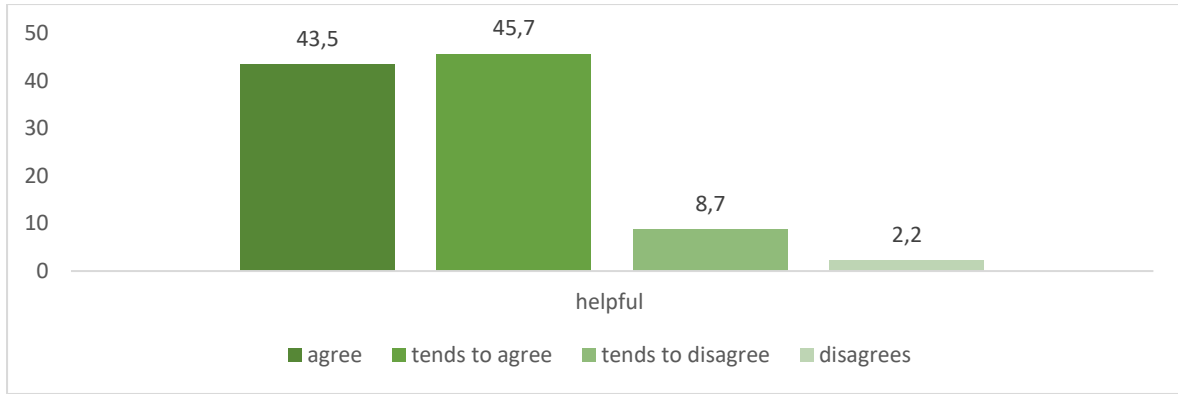
Figure 3 Was the self-assessment tool helpful, data in percent (%)

As can be seen in Figure 4, almost 80% of the people surveyed (*M = 1.67* ; *SD* = 0.826) (more likely) stated that the self-evaluation tool showed them areas in which they would like to develop further to improve the quality of interaction between them and the children.
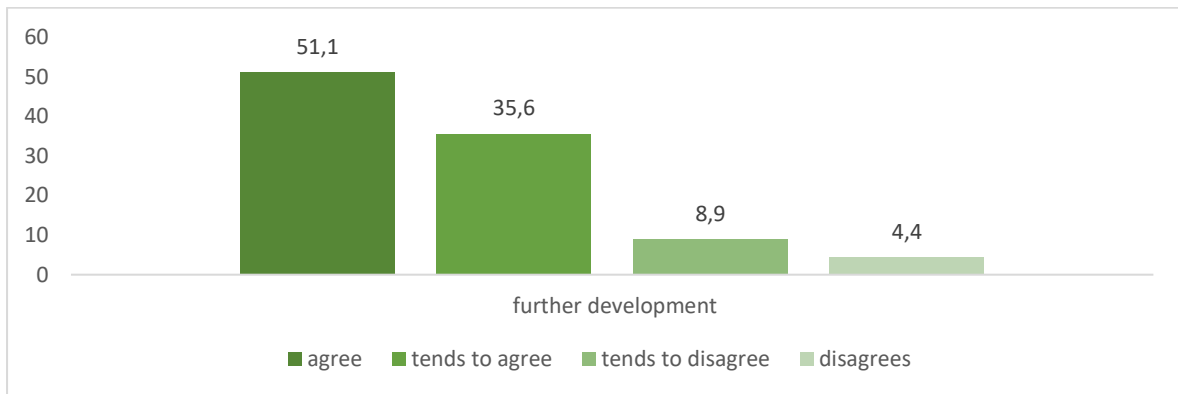

Figure 4 Identification of areas with further development potential, figures in percent (%)

Over 90% of the people questioned (*M = 1.51* ; *SD* = 0.695) indicated (more likely) that the tool helped them to reflect on their own practice (see Figure 5).
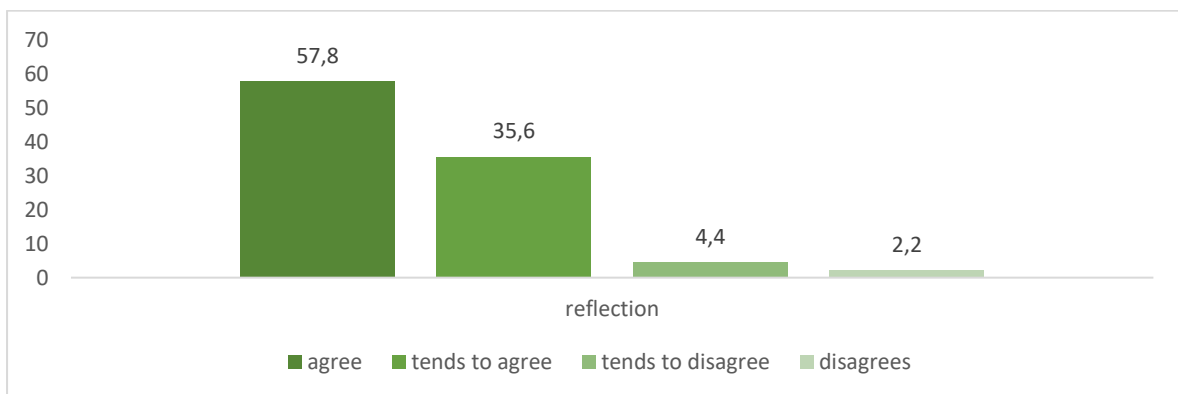

Figure 5 Reflection on own practice, information in percent (%)

5. Analysis Self-Assessment (N=66)

Characteristics	aspects	Mean	Median	SD
Being present	Emotional availaibity	6.59	7.00	1.383
	Appreciation	6.52	7.00	1.545
Experiencing relationships	Arriving	6.52	7.00	1.337
	Peer-Interactions	6.64	7.00	1.184
	Group rituals	6.66	7.00	1.353
Introducing rules and adhering to them	Number/System (Team)	6.49	7.00	1.598
	Mode of behavior/breaking rules	6.70	7.00	1.145
	Keeping records (3-6)	6.00	7.00	1.606
	Beig a role model in social coexistence (3-6)	6.88	7.00	0.492
Supervising conflicts				
	Intervening	6.26	7.00	1.377
	Consoling	6.67	7.00	1.207
	Intensity of reaktions	6.56	7.00	1.397
	Solution strategies	6.52	7.00	1.410
Considering individual needs				
	Flexibility in daily routines	6.21	7.00	1.368
	Structure of transitions	6.23	7.00	1.647
	rooms/areas	5.95	7.00	1.765
Supporting the regulation of emotions				
	Verbalizing emotions	6.59	7.00	1.283
	Reactions of education professional	6.74	7.00	1.124
	Regulation of emotions	6.67	7.00	1.165
Enabling participation	Accessibility and diversity of materials (Team)	6.52	7.00	1.456
	Choices	6.51	7.00	1.324
	PratICIpation in daily routine and bodily care	6.36	7.00	1.623
	Announcement of events	6.70	7.00	1.188
	Independent orientation (Team)	5.80	7.00	1.641
Offering and allowing sensory experiences (0-3)				
	Allowing sensory experiences	6.60	7.00	1.522
	Ecouraging sensory experiences	6.53	7.00	1.548

Providing stimuli (verbally/nonverbally)				
	Disrupting activities	6.64	7.00	1.342
	Changing the rooms for exploration	6.13	7.00	1.830
	Stimuli for actions	6.39	7.00	1.498
	Difficult activities	6.54	7.00	1.311
	Encouragement	6.72	7.00	1.157
Communicating in a stimulating way (0-3)				
	Opportunity to speak	6.23	7.00	1.654
	Language contributions	6.47	7.00	1.570
	Corrective Feedback	6.27	7.00	1.680
	Playful usage of language	6.50	7.00	1.592
	Using terms	6.33	7.00	1.605
	Verbalizing experiences	6.47	7.00	1.570
	Questions	6.50	7.00	1.592
Designing Long-lasting Dialogues (3-6)				
	Taking up and extending linguistic contributions	6.78	7.00	0.706
	Adding your own contributions to dialogues	7.00	7.00	0.000
	Playful usage of language	6.75	7.00	1.107
Expanding Vocabulary Based on Experiences (3-6)				
	Using terms	6.78	7.00	0.706
	Verbalizing experiences	6.72	7.00	0.772
Language-promoting Questions (3-6)				
	Using questions	6.91	7.00	0.530
	Use of various question types	6.94	7.00	0.354
Shaping Language (3-6)				
	Corrective feedback	6.75	7.00	0.842
	Language role model /expanding	6.00	7.00	1.344
	Repeating/expanding	6.72	7.00	1.170
	Transformation	6.09	7.00	1.376

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Attachment

Analysis of second external survey (N=73)[2]

Characteristics	aspects	Mean	Median	SD
Being present	Emotional availaility	6.68	7.00	1.012
	Appreciation	6.65	7.00	1.562
Experiencing relationships	Arriving	5.66	7.00	2.123
	Peer-Interactions	5.07	5.00	2.077
	Group rituals	5.81	7.00	1.725
Introducing rules and adhering to them	Number/System (Team)	5.68	7.00	2.006
	Mode of behavior/breaking rules	5.68	7.00	1.763
	Keeping records (3-6)	4.94	5.00	1.830
	Beig a role model in social coexistence (3-6)	6.34	7.00	0.998
Supervising conflicts	Intervening	5.77	5.00	1.814
	Consoling	6.56	7.00	1.462
	Intensity of reaktions	6.08	7.00	1.869
	Solution strategies			
Considering individual needs				
	Flexibility in daily routines	5.37	5.00	1.559
	Structure of transitions	5.37	5.00	1.679
	rooms/areas	5.51	5.00	1.608
Supporting the regulation of emotions				
	Verbalizing emotions	5.58	7.00	1.683
	Reactions of education professional	6.21	7.00	1.433
	Regulation of emotions	6.04	7.00	1.594
Enabling participation				
	Accessibility and diversity of materials (Team)	5.58	7.00	1.840
	Choices	5.68	7.00	1.755
	Praticipation in daily routine and bodily care	5.90	7.00	1.725
	Announcement of events	5.75	7.00	1.730
	Independent orientation (Team)	5.47	5.00	1.473
Offering and allowing sensory experiences (0-3)				

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[2] Austria, Germany, Hungary, Slovenia, Italy, Portugal

	Allowing sensory experiences	5.84	7.00	2.007
	Ecouraging sensory experiences	5.13	7.00	2.350
Providing stimuli (verbally/nonverbally)				
	Disrupting activities	5.49	7.00	1.908
	Changing the rooms for exploration	5.59	7.00	1.847
	Stimuli for actions	5.45	5.00	1.818
	Difficult activities	5.14	5.00	2.030
	Encouragement	5.96	7.00	1.767
Communicating in a stimulating way (0-3)				
	Opportunity to speak	6.34	7.00	1.279
	Language contributions	6.21	7.00	1.277
	Corrective Feedback	5.37	5.00	1.731
	Playful usage of language	5.03	5.00	2.248
	Using terms	5.08	5.00	1.792
	Verbalizing experiences	5.61	6.00	1.701
	Questions	5.76	7.00	1.224
Designing Long-lasting Dialogues (3-6)				
	Taking up and extending linguistic contributions	5.97	7.00	1.224
	Adding your own contributions to dialogues	5.34	5.00	1.714
	Playful usage of language	5.17	5.00	2.007
Expanding Vocabulary Based on Experiences (3-6)				
	Using terms	5.37	5.00	1.816
	Verbalizing experiences	5.31	5.00	1.859
Language-promoting Questions (3-6)				
	Using questions	6.00	7.00	1.435
	Use of various question types	6.03	7.00	1.636
Shaping Language (3-6)				
	Corrective feedback	5.74	7.00	1.615
	Language role model /expanding	5.43	5.00	1.632
	Repeating/expanding	4.71	4.00	1.447
	Transformation	5.49	5.00	1.541