“There’s no Luxembourgish in my head!”

Co-voicing of a teacher and a researcher in a dialogue on multilingual language learning and teaching in a Luxembourgish preschool setting with the tool iTEO

The point of departure for this paper and the starting point for a multiparty dialogue is the utterance made by a 4-year old French girl, Flavie, in the process of language learning in a Luxembourgish multilingual preschool setting. Flavie’s “There’s no Luxembourgish in my head!” becomes the trigger and the title for a written reflective comment by her kindergarten teacher Rosalba Donatiello-Marinelli on the language development of Flavie. Initially, this girl refused to record utterances in Luxembourgish with the tool and app iTEO that was widely used for creating stories in the iTEO setting of this class. She chose to remain silent and observant instead.

The researcher enters the scene for adding supplementary perspectives by expanding the object, i.e. Flavie’s language learning without and with the tool iTEO as well as the observations, the analysis and the reflections of the teacher, through descriptions, further observations, further reflections and theoretical forays.

Hence, this paper about multilingual language learning and teaching engages two people, a teacher and a researcher, and two environments, teaching and researching, in what Bakhtin (1986, 78, 89) calls ‘dialogism’ or ‘multi-voicedness’ about Flavie’s language learning without and with iTEO: ‘(…) varying degrees of otherness or varying degrees of ‘our-own-ness’, varying degrees of awareness and detachment’ meet in an
endeavour to reach a mutual understanding that incorporates the other with his/her distinctness. The genesis of a consensus can be neglected altogether as the project results in a dialogue that rests on shifting theoretical, pedagogical and didactical perspectives. Our paper aims at a co-sounding of differentiated angles of perception and argumentation that systematically avoid an attitude of indifference towards the partner (Friedrich, 1993, 11).

The paper is intended to illustrate the possibilities for dialogue and for solidarity between teacher and researcher that may open roads for teacher-researchers’ co-voicing and co-researching in and about learning zones, in our case language learning. Both parties might thus reach for their unfinalisable potentials and propensions on equal stands.

**The context**

Luxembourg is a multilingual and multicultural country with a trilingual education system and a hyper-diverse intake. The Ministry of Education’s aims for the development of children’s competencies in the three official languages are as follows: oral Luxembourgish from pre-school, oral and written German from Year 1 in primary school, oral French from Year 2, and written French from Year 3.

**Recently the Ministry of Education has initiated a vague bilingual crèche system and there are plans for bilingual pre-schools, both times in Luxembourgish-French (MENJE, 2016).** There is presently an urgent need for didactical strategies in both areas and for consequent training of the educators involved.

However so far, in Luxembourg as well as in most other countries, the Ministry and schools traditionally persist in conceptualising language and literacy – the greatest forces and mediators of socialisation (Sapir, 1985) – as de-contextualised knowledge separate from social dialogue (Dyson, 1993). Luxembourgish schools tend to lack the
dynamics, flux, improvisation and heterogeneity of their multilingual and intercultural setting (Rosaldo, 1993). Language learning may however prove to be much more unsystematic, especially in a multilingual and multicultural context, than we tend to believe, due to a lifetime spent in structured and pre-planned formal lessons deriving mainly from all-pervasive monolingual written norms and forms.

Recent statements by the Minister concerning the targets of multilingual education highlight the importance of Luxembourgish as a vehicle for integration as well as the importance of respecting the diversity and differences of all the languages that children bring from home. Such an attitude may constitute an adequate prop for the use in school settings of the app iTEO.

Languages and language learning in Flavie’s classroom

Many languages were co-existing and inter-animating each other in Flavie’s classroom: Portuguese, Spanish, French, Luxembourgish, Bosnian, and the teacher’s Italian. The teacher views languages that enter the classroom as lived intonations that must be continually stimulated and invigorated. There are many lived situations possible in the classroom where the various languages can manifest themselves and invite each other for participation in the activities: listening to stories; inventing and doing the stories; doing songs; parents visiting the classroom and talking to the children in their particular home language; viewing youtube clips on particular topics; looking up things in books; asking for translations between the children and many others. Opportunities for accepting, respecting and sharing these languages are manifold and reflect the teacher’s view on languages as malleable objects that cannot be sealed off from each other, a view that she wants to share with her pupils. She claims that in this way the children gradually learn to free themselves from the often-quoted parental message that
they must only speak Luxembourgish in school. For our teacher communication comes first. The pupils must feel and learn the importance of communication in the classroom before getting the language right. Their language behavior tilts toward performance so that competence can gradually emerge from their participation in communication. Their attitude changes from ‘I have to be and to behave in this particular way’ to ‘I can be myself and stay true to myself’. The teacher’s belief is that her attitude reflects her autobiographical trajectory through languages and more specifically in the context of learning. She tells each parent, student or other people entering the classroom that a language is a tool and that it cannot be reduced to the learning of a content. She does not intend to impose on children how they have to speak because this would stifle their whole thinking. Of course, Luxembourgish is an absolute priority and the teacher is aware of her responsibility and of her mission in this context. She insists on sharing the importance of the Luxembourgish language with her children in a way that insists on the added value of Luxembourgish in the specific meaningful context of interaction and communication. In the case of Flavie, this means that the child must feel the respect and the confidence of her teacher and of the other pupils and parents in order to display her own attitude and performance in Luxembourgish.

The tool

iTEO runs on the transportable iPad with its in-built camera and microphone. The app makes use of this recording device to allow users to record themselves and listen to themselves when speaking in the languages they are learning. We are referring to dimensions of learning that keep the discourse in language learning alive and have all the pupils of a classroom participating in the on-going dialogue of the learning and language performance. Individual utterances can only be meaningful and understood as
the result of the situated activity and of the circulation of knowledge between the human
and nonhuman actors in the iTEO team. It is as if the personal meanings and
intentionalities - as the result of the activity of language learning with TEO - become
sedimented, embodied and objectified (Daniels, 2008) in iTEO. ITEO was developed as
a sequel to the original desktop version TEO that was based on Vygotskian and
Bakhtinian ideas and theories with a focus on the development of children’s strategies
for the acquisition of competencies in oral language production (Gretsch, 1994). The role
and function of the TEO tool became the focus of research (Gretsch, 2010) that can be
applied to the iPad version iTEO. Similar to TEO, iTEO helps to establish not only a
zone of communication, of cooperation and of identification but at the same time a zone
of contestation and of resistance where vulnerability can shine through at moments, as
will be revealed in the subsequent dialogue.

Rosalba Donatiello-Marinelli’s article will be offset as indented and in italics. The text has
been translated from French into English:

“There’s no Luxembourgish in my head!”

This is what Flavie told me when I asked her why she did not speak out and
record her utterances with the app ITEO. Whereas all the other children
launched into recording stories of all kinds with the iPad, Flavie kept silent and
observant. And she knew pretty well how to explain her reason: she was not yet
ready for telling a story in another language than her French mother tongue.
Flavie’s outcry happened in January of the school-year 2014/2015 when I had
introduced the children to the iPad with the app iTEO in my preschool
classroom. Flavie’s bold statement took me by surprise as I held the opinion
that the young girl was going along pretty well in Luxembourgish at that time.

With “There’s no Luxembourgish in my head!” Flavie refers to her own competencies
in Luxembourgish language as necessarily nesting in her head. This sentence
highlights the tension and the dichotomy between the collective nature of the act of
speaking and the individualistic view on mastery of a language and its structures that is pervading the evaluative processes in schools. Schools and their curricula – at any level - ultimately come to locate knowledge and competence in the head of the individual pupil or student, even when it comes to the learning and acquisition of a collective cultural tool such as language, which typically comes into existence in associative and communicative situations (Sapir, 1985). This is why Flavie does not refer to the necessary networking or knotworking between several heads as a precondition for the acquisition of language competencies. The enrolment of the other children in this classroom in the storying process with iTEO and the subsequent sharing of the recordings with the other pupils and the teachers are an illustration of a functional stance that legitimates the iTEO team (human and non-human actors) as the basic unit for oral language learning. A sound practice around iTEO helps to outgrow the individualistic paradigm so prominent when it comes to language learning situations in the official school setting where it is the individual who must account for his or her learning process. iTEO allows for sustained engagement in participatory dialogue and hence for learning to learn from human and non-human actors. It fosters human creativity through its being open to the emergence and to the transformation of new ideas in a dialogue (Ravenscroft et al., 2007) between pupils, teachers and, as in this paper, between teacher and researcher. Indeed, the ‘goal of promoting creativity in schools will not be achieved if the construct of creativity remains that of an individualistic capability’ (Daniels, 2008a, p. 146). Creative collective activity is necessarily open-ended and unfinalised, because it is based on dialogue as the single adequate form for expressing authentic human life: ‘Life by its very nature is dialogic. To live means to participate in dialogue: to ask questions, to heed, to respond, to agree, and so forth. In this dialogue a person participates wholly and throughout his whole life: with his lips, hands, soul, spirit,
with his whole body and deeds’ (Bakhtin, 1984, p. 293). Unfinalised dialogical life allows for the adoption or for the rejection of articulated views, as also exemplified in this paper.

Flavie chooses to stay silent in but observant of the on-going dialogues around the use of iTEO and of the recorded stories in the classroom. This shows that the teacher has developed a very differentiated view on learning and on how children grow into learning processes. The teacher values tacit voices, attitudes and knowledge that arise during the process of Flavie’s silent observation of others’ activities. She knows that meaningful and ordered experiences are based on recurrence in typical “social episodes, ‘settings’, ‘situations’ or ‘frames’ that regulate ‘what can go on’ (Hundeide, 1985, 307, 311)”. This sociocultural basis or frame forms the interpretive background for the pupils’ but also for the teachers’ individual minds. Polanyi asserts that “Into every act of knowing there enters a passionate contribution of the person knowing what is being known (Polanyi, 1958, VII, VIII).” The teacher is convinced that Flavie needs to feel herself into iTEO’s ‘lived situation’ (Greene, 1998, 6) through intense observation in order to cultivate her passion for knowing. She knows that some participants in the iTEO experience may remain silent at the beginning of the learning process without producing language. Such ‘silent periods’ are essential in second or other language learning experiences, as they give some children supplementary time in order to gain confidence before entering the language production process (Dulay et al., 1982, Ellis, 1992). Flavie is granted the status of a silent participant in the construction of the Luxembourgish language that for the moment seems to be beyond her competence and beyond her zone of potential development. She thus becomes a legitimately if peripherally participating actor in the iTEO team (Lave and Wenger, 1991) and lives through a vicarious ‘performance before competence’ (Cazden, 1997) that will enable her to develop her competences in the Luxembourgish language while participating in joint
relational language activities. As a peripheral actor Flavie might engage in sub-vocally or in silently shadowing the iTEO utterances or replays, thus creating a tacit voice that provides new opportunities for addressing the teacher and the other pupils and for eliciting responses from them. This teacher’s differentiated view on language learning is a long way from the ‘lessoned’ or ‘unit’ situation prevailing in traditional school settings. Teachers should embrace occasions for generating tacit knowledge in their pupils, because they themselves make daily use of tacit educational knowledge: “Their decisions of what to focus on minute-by-minute and day-to-day grow out of their tacit knowledge of classroom dynamics. This intimate knowledge helps them see and analyze events that an outside researcher would be unlikely to notice (Pine, 1992, 659, 660).” Pine provides a strong argument for the professional model of the teacher-researcher who akin to Flavie might choose his/her own way into learning and knowledge, thus becoming an autonomous author of his/her professional development by planning his/her own learning trajectory. Sarason’s statement finds itself corroborated: “Schools are not created to foster the intellectual and professional growth of teachers. The assumption that teachers can create and maintain those conditions which make school learning and school living stimulating for children, without those same conditions existing for teachers, has no warrant in the history of man (Sarason, 1972, 123).” Flavie’s choice not to go public with her existing knowledge of Luxembourgish language is important in her own learning trajectory and does not preclude tacit procedures. Tacit knowledge can grow into reflective knowledge through complex periods of hesitancies, doubts, ambiguities and difficulties in a conversational arena that allows for propensive and tentative tending towards new languages (Jullien, 2015). This is so because the iTEO environment affords a wide choice for action, participation, transformation and hence learning: ‘Students are free to decide whether to participate, when to participate, and how to participate (loud voice; whisper voice; no voice; silent lip-modelling), in
accordance with self-monitored measures of competence and confidence. (...) everyone is the speaker’ (Van Dam, 2002, p. 246).

Finally, Flavie’s statement might find its poetical echo in Osip Mandelstam’s words: “It is a whisper before it meets the lips.”

Although Flavie spoke to me in French she understood all the regular Luxembourgish expressions that are pervading the school setting: she correctly reacted to my instructions, she understood the games in ‘Luxembourgish’ of her comrades and joined them during playtime, she even made up short sentences and articulated questions or stereotyped assertions in Luxembourgish. While in her family context Luxembourgish was virtually non-existent, she had come into contact with the Luxembourgish language for one year and a half as she had already spent a fruitful year in an early-years educational context (‘éducation précoce’). I principally adopted the view that iTEO could offer Flavie a protected setting or zone where she could express herself freely and, hence, also practice her language skills in the same vein. I did not see any obstacles for her to express herself in Luxembourgish, even if in rudimentary ways.

The teacher shows a definite awareness of the differences between the authorized school discourse with its mostly stereotyped regular sentences and the authentic language performances with their creative and indeterminate utterances. We are in the presence of two distinct activity systems. In order to establish meaningful language education in school we need to identify boundary objects or boundary processes that are latent and effective in both activity systems. Thoughtful teaching should capitalize on these objects and processes in order to maintain the essence of the languaging process in the transition from home to school. Obvious candidates for such boundary objects are picture books, toys or (stuffed) animals. Boundary processes can be exemplified through the ‘storying’ approach prevalent in the work with iTEO where people can continue to create and to exploit their own stories in one or another context. Wittgenstein’s ‘language games’ are to be instantiated in both contexts, informal and formal, although they are difficult to maintain in the school context where problems and difficulties tend to
be suppressed\textsuperscript{1}. A sort of composite language learning with elements from both activity systems could be installed around the aforementioned boundary objects and processes. This would allow for maintaining the indeterminateness that pervades authentic speaking and language use, even if this is difficult to set up in formal school situations: “Das Schwerste ist hier, die Unbestimmtheit richtig und unverfälscht zum Ausdruck zu bringen (Wittgenstein, 2012, 231).”

Boundary objects and boundary processes create a family of games or of activities based on similarities in a complicated network. The fuzzy elements that are badly needed in authentic communicative processes are preserved in such networks: “Ist das unscharfe nicht oft gerade das, was wir brauchen (Wittgenstein, 2012, 268)?” With the mobile iTEO app and with the iPAD the network of language games can be preserved. All that what children, parents, relatives and friends do and speak at home can be infused into the school setting, whereas school products and projects can find their ways back into the family circle. According to Williams (1958), lived culture is ordinary. As such it provides the fertile ground for establishing zones of dialogue and of voices from and for both activity systems through boundary objects like stories or books and processes like storying where each stakeholder can build within life and from life (Freinet, 1994). In this dynamic process, persons’ languages and identities are flowing on the boundary: The iTEO environment can create a polyphonic zone for the acceptance of a plurality of languages expressing a multiplicity of subjects, voices and views of the world (Bakhtin, 1984). The boundary is replete with complex transformational procedures: repetition, imitation, adaptation, rejection, resistance, frustration, uncertainty, determination, withdrawal, empathy, menace among others.

that co-exist and that are intertwined. By incorporating different genres and voices ITEO can create voice zones or prosaic zones where temporary prosaic order is created: “It values slow, open processes, and it rewards those who are successful at developing, over time, flexible, particularized, nonrepeating relations among differentiated parts (Emerson, 1997, 35, 36).”

The teacher is also aware that ITEO offers a protected setting or zone where Flavie can show her own vulnerability in the process of understanding a new language without being threatened to remain silent for too long. In processes of learning and understanding it is essential that the learner may have a right to claim his/her own vulnerability. Many learning experiences could become fruitful and many learning potentials could come into existence, if we were more inclined to accept and to name our vulnerabilities and uncertainties in the face of the other participants. This vulnerability is an integral part of Flavie’s meaning making. During the learning process, she might choose to retreat to a silent vulnerability that does not endanger the on-going meaning making that is in the wake of being completed in the next new but also recurrent situation. Latour’s sentence: “Routine is an enemy of judgment (...) because of the necessity of hesitating in order to judge well (Latour, 2010, 82)” can easily be transformed into “Routine is an enemy of language use and of (trans)languaging (...) because of the necessity of hesitating in order to speak and to learn well.” Our language use and our language learning may be much more hesitant and vulnerable than we tend to believe due to our view of language as an isolated, well-defined and self-contained system.

The more ownership and the more authorship we afford children in such language learning processes the more can the teacher calibrate his/her interventions without
jeopardising the tenuous web of significations that is created by the children: “(…) it is the ownership of words that gives one confidence. I must want the word, enjoy the word and use the word to own it. When the new word becomes synonymous in my head as well as externally, then I can think with it (Demientieff, 1993, p. 197).” For the teacher, the work with iTEO allows to address the language learner not only as someone who can do by means of language (Austin, 1962) but as someone who can be through his/her speech and through his/her work (Litowitz, 1993), i.e. as someone who strives to complete his/her yet-unrealised potential (Kozulin, 1990), his/her authority in the authoring process.

I regularly send the children who want to work with iTEO to a small room next to our classroom in order to avoid noises that might interfere with the recording process of the children’s stories. The pupils frequently choose groups of two or even go alone if they wish so and freely choose the contents for their recordings. Hence, I chose to send Flavie there each time with a more competent partner who was fluent in Luxembourgish in order for her to profit from the language knowledge and competences of the others.

The teacher knows about the importance of space and time for the language production process of the pupils. Children “(…) learn to speak appropriately for the spaces that they inhabit in a given environment (Tulbert & Goodwin, 2011, 87)”. As competent actors, the children construct shared workspaces and arrange resources and tools like iTEO to facilitate collaborative action and speaking (Streeck & Goodwin & LeBaron, 2011, 10). The teacher uses iTEO in a different socio-material environment for discovering the hidden linguistic resources of children in the interstices of bodily behaviours, hesitancies, pauses, emotions and silences originating from hybrid funds of knowledge hidden in objects, plays, activities, friendships, conflicts and families. She follows the moves of the children and of other co-participants within communicative action sequences where every “(…) single utterance using speech employs, in a completely integrated fashion, patterns of voicing and intonation, pausings and rhythmicities, which
are manifested not only audibly, but kinesically as well, (…) (Kendon, 2009, 363).” It is therefore important to leave the confinement to benches of ordinary classrooms in favour of open spaces. The usual sitting order of classrooms restricts the full use of corporeal attitudes and gestures so important for the genesis of authentic speech and discourse. Children in the adjacent room can even make use of peripheral vision or “peripersonal perception (i.e., of people’s perception of the immediate space surrounding them and of nearby bodies) (Avital & Streeck, 2011, 171)” for maintaining the flow of speech and conversation. Hence, the language production process benefits from the interactive and contingent coproduction of a shared socio-material world (Suchman, 2007). This socio-material world can be established through touching or through the coordination of distant body movements in general: body positionings, gestures and gazes establish a socio-material zone of fusion (Robbins, 2003) or a zone of socio-material performance representing the unity of both the individual and the social where the human actors are contributing their verbal enactments.

As the teacher refers to more competent partners accompanying Flavie to the adjacent room, we are reminded of Vygotskian theories of learning and instruction. Her choices of a different social-material zone for the work with iTEO may help to establish zones of potential development built on creative exploration rather than pedagogic domination. In these zones of language learning children are enabled to build their linguistic becoming on the integration of cognitive and affective elements. Language learning presupposes the presence of emotions (Daniels, 2008a) and it is ‘refracted through the prism of the child’s emotional experience’ (Vygotsky, 1994a, 339). A long time ago, Vygotsky argued for the concept of drama as necessary for the explanation of psychological development (Vygotsky, 1989). Language learning with iTEO allows for respecting Vygotsky’s agenda, as the drama of storying can unfold as a system of interaction in which the pupils participate at their own will and pace. On the basis of an activity-theory-driven and
an actor-network-theory-driven depiction, human actors like Flavie and her partners make use of a socially structured space of possibility or potentiality in which particular positions are taken up in the process of ‘storying’ and, hence, in the process of language learning (Daniels, 2008a).

Alas! All that was accomplished by Flavie was pure observation and listening. As I told her that I simply did not hear her do some speaking during my analysis of the recordings she had made with others, she simply replied: “There is no Luxembourgish in my head.”

While I had never insisted that the pupils should exclusively use Luxembourgish when working with iTEO, I needed to acknowledge that Flavie had probably absorbed an implicit message: for her, to work with the app iTEO meant to speak, to practice and to exercise in Luxembourgish. On the other hand, however, this view did not kill her motivation or hardly keep her from regularly joining her comrades in the adjacent room, iPad in her hands. That was the time when I decided to have a closer look at her case. I wanted to discover if my intention to immerse her much more into the practice of oral language (Luxembourgish), albeit in a more intimate and restricted setting, would stimulate her more and lead to progress in her production of Luxembourgish.

In the course of some months I was able to notice the following interesting elements:

In the beginning Flavie was present during the ITEO recordings in the iTEO setting, but she did not contribute through words. She was watching her partners as they manipulated iTEO, as they got closer to the iPad for speaking, as they thumbed through books next to the iPad in order to scan for images that could assist them in the ‘storying’ process, or, on the contrary, direct their eyes at the empty space for liberating their imagination.

At best did Flavie “play parrot” when repeating the last words of her partners’ sentences.

Observation and listening pervade Flavie’s tacit participation in the socio-material performances in the iTEO setting. The teacher identifies Flavie’s strong desire to participate and to be physically present in the recording sessions where her partners do articulate themselves audibly and vocally, even if she knows that she is not yet ready for contributing to the target language Luxembourgish that she has clearly identified as the object of the school’s activity system. But at the same moment, Flavie does not become desperate and demotivated from the frustration of not feeling able to contribute vocally to the recordings with iTEO. In effect, dynamic situations as those prevalent in the iTEO setting entail big frustrations because they constantly challenge us with the questions of
‘what to do’, ‘why to do’ and ‘how to do’ pertaining to our objectives in life, in learning and in teaching. Ames (1960, 223) points out the benefits of frustrations as they represent one of the basic and inescapable characteristics of human life: “Due to the fact that nature is a becomingness and therefore always changing, ‘The best laid plans of mice and men’ (…) when applied to reality can never work out as expected. (…) The conditions attending frustration are true opportunities (…) for improvement. The sense of frustration instead of being dodged and avoided must be accepted as a challenge.” Real opportunities for learning and improvement originate in frustration. Moments of frustrations can be discussed in between the partners in the setting and with the teacher. As with Flavie, the children as responsible actors can talk about the difficulties and frustrations and can thus maintain the dynamics of the language learning process. They simply have another attempt at the matter. Studying what becomes (Puzyrey, 1986) is the only effective way of coming close to the real language learning situation. In the process the pupils come to adapt, develop and transform their highly individual voice, which is necessary for conscious language development (Bakhtin, 1981). Flavie’s voice is not lost in the transition phase from observing the actions and from listening to the utterances or voices of her partners. It looks as if Flavie was growing in silence by remaining peripherally active in the language learning process. Flavie contributes her physical and emotional presence if not her words to the recording session and to the storying process. Intense listening and observing pave the way for the echoing of other’s performances through partial imitation of the last words of their sentences. Flavie thus enters the circle of addressivity that constitutes the core of communicative performances. The team efforts in the iTEO setting and the iTEO replay afford multiple opportunities for intense sub-vocalising, co-vocalising and echo-vocalising, three processes that exemplify the richness of the process of imitation so dear to Vygotsky (1987, 210): “(…) development based on collaboration and imitation is
the source of all the specifically human characteristics of consciousness that develop in the child.” The consciousness of a new language called Luxembourgish is burgeoning in Flavie’s head and this bud is well needed as it is “(…) geared to constructing, maintaining and refining social activities and artifacts (Ratner, 2006, 36)”, in our case the speaking of Luxembourgish and the recording of stories in Luxembourgish. It is important that Flavie remains immersed in this zone of collective socio-material language performances. In their cumulative talk the members of the team build on each other’s contributions, add information of their own and construct shared knowledge and understanding (Mercer, 2000), if only vicariously as in Flavie’s case. In such mutually supportive situations Flavie can safely develop her ‘interpretative propensities’ (Enfield, 2011, 61) and grow into joining the vocal performance of the team.

The teacher’s impressive description of the children’s tentative activities in the iTEO setting shows that learning a language really means to do a language. The manipulation of the iTEO tool and of the iPad, the organisation of the vicinity, the use of other artifacts and imaginative spaces reveal that the children discover not only how to do what they do not know how to do, but also that they can do it. Performances then create stages for development and overcome the paradigmatic dualism of cognition and emotion by integrating both sides into the learning episodes (Holzman, 2009). The pupils learn as they do iTEO in a setting where “Meanings emerge from juxtapositions of gestures and words with material artifacts, with one’s own body and the bodies of others, with one’s own words and the words of others, and with one’s own gestures and the gestures produced by others (Hutchins & Nomura, 2011, 43).”

Flavie preferred to work with francophonic friends with whom she could negotiate much easier about the manipulation of the iPad or about the content of the storying process and recordings. Even if Flavie did not speak out by herself, I did have the opportunity after a certain time to hear her murmur to her partner what
he should say. In fact, Flavie made all her comments in French, “off line”, and her partner translated these comments into Luxembourgish when recording.

Flavie’s murmuring is in the continuity of her echoing practices seen above. She resorts to French that she uses at home and in her community for launching peripherally into the recording process. Thus, Flavie’s agency in the language production process is latent, becomes transparent with her murmuring and may finally become fully audible and participatory in the production of the target language at her choice. The iTEO setting can be characterised as a construction site of activities, artifacts, concepts, and psychological phenomena that foster each pupil’s agency through participation in social activities (Ratner, 2002, 62, 63). In this setting, the final form that is already used by her partners actually interacts with and exerts a real influence on the first steps of Flavie’s development within her team: “Something which is only supposed to take shape at the very end of development, somehow influences the very first steps in this development (Vygotsky, 1994, 348).” Flavie’s attitude of latent agency is matched by the affordances of the iTEO team and setting. The iTEO setting with its affordances for communication and interaction is a set or a concept as described by Uznadze² (Natadze, 1969, 612, 613). In this set, Flavie’s attitude, motivation and agency are constantly influenced, satisfied and modified by her own need for participation in the storying process of the iTEO team.

After some weeks Flavie took to singing songs in Luxembourgish. These songs did provide her with the necessary level of confidence for overcoming her inhibitions and for progressing. From then on, she started to articulate and to express herself in Luxembourgish, but only by using familiar, well-known structures. For Flavie the songs typified passe-partouts in Luxembourgish or

² «(…) entwickelte Uznadze seine als Einstellungstheorie bekanntgewordene Konzeption: Immer dann, wenn in einem Individuum ein bestimmtes Bedürfnis existiert, und in der Umwelt ein Mittel zur Befriedigung dieses Bedürfnisses, d.h. eine entsprechende Situation vorhanden ist, entsteht in besagtem Individuum die Einstellung auf eine bestimmte, zur Befriedigung des Bedürfnisses geeignete Aktivität.»
Paul Gerhard Rühl, 1983, Tätigkeit - Einstellung - Fremdsprachenunterricht, S. 151, 152, Tübingen: Gunter Narr Verlag
ready-made formula that opened up domains of language performance that were out of her reach not long ago.

The teacher witnessed Flavie’s growing of confidence as she launched into the singing of familiar Luxembourgish songs. This illustrates the importance of rhythms and rhymes in the beginning of any language development. Songs and rhymes are pervading cultural contexts and constitute a frame of belonging and comfort that fosters resilient language performances. All the more, songs and rhymes are familiar and emergent by-products of children’s co-ordinations and co-constructions whenever they are engaged in dialogues and negotiations. They are invitations for dynamic contributions through co-authoring and they are conferring authority on each personal contribution. Flavie’s and the other children’s agentive behavior in language learning is socially, conventionally and culturally formed, in this case through narratives or social formulations (Ratner, 2002, 83) structured in the modality of songs and rhymes. This is the path that Flavie chooses for intentionally conforming to the social conventions that the Luxembourgish school epitomizes in the domain of language use and learning. Dialogue and negotiation in the iTEO setting transcend the artificial boundaries of languages and modalities. In the iTEO setting children move between the different languages that co-exist in the institutional space and use different modalities for enhancing and developing their competencies in the targeted languages, but also in their other languages. Words, sentences, rhymes, songs, gestures, corporeal carriers, and stories are co-existent modalities that operate in the iTEO setting like a tool-and-result in that the children enjoy the possibility to continuously create and re-create their learning environment even as they learn in it (Holzman, 1997). The typified passe-partouts and ready-made formula so prominent in songs and stories instantiate instances of joint or relational learning and development with the tool-and-result iTEO where instruction between the iTEO team members proceeds ahead of the individual development of
some members of the group. Vygotsky (1987) insisted that instruction is only useful when it moves ahead of development and when it is itself a source of development by propelling fragmentary and not yet matured learning episodes. The iTEO tool-and-result is such an instructional methodology as envisioned by Vygotsky. It enables the learners to participate right from the beginning in a whole, meaningful unit of functional activity (Cazden, 1996), in our case the telling of a story through planning and constructing utterances through (trans)languaging as we will see below and through a range of modalities. We must be constantly wary of the lurking verbo-centrism that naturally pervades our views on language learning as we must not forget that Flavie’s first steps are steeped in corporeal co-presence with her partners: it is precisely in this setting that she is getting a sense of value during going on together.

Subsequently, Flavie started to record stories in French. Did she realize that other francophone children did not bother about speaking in Luxembourgish when they were to record stories with iTEO and that these children told stories in French and spoke sentences in English or in Portuguese? Or did she in the end come to accept to hear herself tell stories in any language available to her? It is a fact that ever since has she been telling and recording long stories that she invented spontaneously (or did she hear them at home?) or derived from a book beside her as assistance (from a reading with the whole class beforehand). Flavie is telling more stories in French than in Luxembourgish, but at least does she verbally appear in stories told with iTEO. In the iTEO setting she finally is no longer an invited guest, but a full-fledged actor.

Here the teacher alludes to intensive (trans)languaging going on in the iTEO setting, mainly by the other children. Our previous description of the the activity of constructing stories and on “doing” language with iTEO might be seen in connection with Pennycook’s (2010) notion of “languaging”. Rather than looking at language as an autonomous and stable linguistic system, “languaging” emphasises the way in which varied linguistic resources are used to communicate and to enter into dialogues (Jørgensen & Juffermans, 2011). Wei (2011) speaks of a “translanguaging space” where
persons weave together cognitive, emotional and social elements (2011, 1223).

According to Williams (2002), in educational contexts do people shuttle between all the languages available for the purpose of comprehension and of production of a target language in the curriculum. According to Canagarajah (2011), Creese and Blackledge (2010) and Velasco and García (2014), translanguaging is a means of conveying one’s voice and of marking one’s identity. Flavie needed time spent in iTEO’s productive learning environment before taking the risks to join the other children in the (trans)languaging and storytelling experience. In a productive learning environment like the iTEO setting each pupil must be considered as the author of his/her particular experience, his/her particular being and his/her particular knowledge, his/her particular ‘texts’. Sarason (1974, 3) has described a context of productive learning as a “larger network of relationships that would give greater expression to our needs for intimacy, diversity, usefulness, and belongingness.” It is a place where learning can emerge from the interplay of differentiated and differential voices (Gundlach, 1997, IX). This is true for every learner, be it a child or an adult, a pupil or a teacher and we can see its effects in Flavie’s delicate growing into the language use of her school community. A productive learning environment should rely on continuity between all levels of schooling and try to establish relationships between the different patterns, preschool-primary-secondary, in the face of a prevailing traditional retrospective education. We should become more and more prospective in modern education. This implies “(…) that students should be oriented to productive rather than reproductive knowledge. Thus, a body of knowledge should appear not in the form of results and solutions but rather as a process of authoring (Kozulin, 1996, 161).” Flavie is engaged in such an authoring process, tentative as it might be, as she profits from the iTEO productive learning environment that stimulates, supports, and sustains her own interests, questions, and exploratory actions. As Sarason (1997) notes, there are huge differences between productive and
unproductive learning, between having to learn and wanting to learn, between student involvement and student engagement. It is essential that we recognize how Flavie wants to grow cognitively and emotionally into the relational process where her experiences with languages remain meaningful in that they reflect her own voice and intentionalities. These ordinary, hour to hour, minute to minute relational acts (indeed, the continuous collective activity), this human practice, in all its banality, is the backbone of her meaningful experiences with language production (Newman & Holzman, 1996, 34, 35).

These elements of Flavie’s developmental path made me aware of the following: The Luxembourgish language was always present in Flavie’s head, but it had not yet entered the emotional part of her personality. iTEO not only enabled Flavie as well as all the other children in the classroom to play with languages, to manipulate languages, to experiment with trajectories and paths, to negotiate the meanings of sentences, utterances and stories, but especially made it possible for them to do so by following his/her own intentions. Flavie enjoyed the possibility for controlling her actions and her words and hence could feel responsible in this process. Accordingly, Luxembourgish started to become meaningful in her eyes.

iTEO had a role as a patient listener and I have learnt to become such one, too. The rigor (which gradually transformed into curiosity) with which I listen to the iTEO productions of the children at night in my home did reveal to me an aspect of oral language that I had largely underestimated. The children’s negotiations as partners in front of the iPad screen, their pauses and their hesitations, their experimentations with words, their comments and their judgments on form and courses of actions in their stories tell a complex story of the development of a language. iTEO offers the possibility for a deeper exploitation of the languages due to the tracing of the oral production that it affords.

This tracing has led me to reflect on the language learning experiences of the children. The tracing also affords for various exchanges with my work partner, but also with the parents. In her own words and from the perspective of an active partner in the children’s language learning experiences in the iTEO setting, the teacher reframes what we have elaborated above. She stresses the importance of the children’s emotions in the pursuing of their learning experiences. Language learning and language development as cognitive activities are intimately linked to emotional and motivational factors. Storying in
the iTEO setting is characterised by emotional, volitional, intentional and intuitional factors. These factors are actualised in utterances, in body postures, in gestures and in facial expressions. The activities of negotiation and production of Luxembourgish, French and other languages necessarily lead to a permanent reorganisation of affect and attitude (Newman & Holzman, 1993). The emotions lived through by the human actors in this gestural iTEO environment make sure that the speakers thrive in the dynamics of the various language performances. Emotions mark off the singularity of each dialogic situation and the particular responsibility of the participants (Saul Morson & Emerson, 1990). However, formal school settings make it difficult for children to initiate interactions and to accentuate their own discourse by what Bakhtin calls ‘living intonation’, an intonation that is always expressive as it is intimately linked with the contents of the discourse (Bakhtine, 1977). Emotional reactions and passionate outbursts are often not accepted by teachers fearing loss of authority and direction in the educational discourse. Hence, the iTEO setting functions at its best when the teacher physically withdraws from the socio-material space and enacts his or her responsibility at the confines of the language learning episodes. We might then overhear in pupils’ dialogues some meaningless words or mere interjections that function as utterances full of emotional-volitional tone or intonation. In the absence of the teacher Flavie can patiently wait for infusing her language production with a deliberate emotional-volitional tone that illustrates her emotional-volitional thinking, a thinking that intonates (Bakhtin, 1993).

The teacher sees Flavie’s own intentionality as essential in the emergent process of her language production. The language structures in French or in another language are not learned by way of a teacher’s explanations or by a succession of grammatical drills imposed by the teacher’s authority. By relating to each other as capable peers and as performers and transformers of language, the learners consciously and continuously
practice their meta-language skills. They come to learn languages in the iTEO team on the basis of affect and intellect, of their desires and needs, of their interests and emotions that constitute their motivation (Vygotsky, 1986) and that are truly instruments of cognition (Goodman, 1984). As human intentionality can be stored, accessed and activated through iTEO, zones of potential development through reflection can be created in the complex and differentiated interplay of people and tools.

The teacher can or even must nevertheless become part of this complex interplay in an additional role afforded by the tracing of the oral production with the iPad. Her action as a partner in the construction zone is postponed until the late evening where she can add layers of consciousness to the recordings and maybe propel them by discussing them the next day in school with the production team or with the whole class. She thus opens up more opportunities for reflective efforts of all the partners involved in the iTEO setting: children, teachers, parents, relatives, … In effect, tracing establishes a network of relationships so that the analyst (i.e. the person who engages in tracing) can follow the actors, multiplying the details so that his/her descriptions and digressions become infinite (Calvino, 2009). A multitude of perspectives on the emergence of production processes become possible that enrich the development of personal attitudes, of personal responsibilities and of professional competences. Tracing may offer essential insights into the intricate links between formal (school-based) and informal (out-of-school) activity systems in the genesis of the children’s stories and thus promote their cross-fertilisation. iTEO can provide windows on learning and on particular learning processes. Hence, it can become an effective tool for teacher-researchers and ethnographic research. The teacher points to iTEO as an essential tool for becoming a reflective practitioner in the network of her professional field that may be extended through the circulation of the iTEO productions.
Instead of satisfying myself with rather simple statements ("The child is able to talk well or rather well or very well in the Luxembourgish language"), we have now a common window on the oral language of the child, we have examples of iTEO productions that illustrate his/her language learning process. With iTEO the social and emotional aspects of language are respected and considered, those two aspects that, according to my view, are all too often omitted when we evaluate children's learning of a language.

Each day, the children keep asking for working with iTEO. The older pupils introduce the novices into the activity without any intervention from my side. The iTEO sessions spontaneously generate other activities like role-plays, like drawings in the classroom or even the staging of offshoots from iTEO productions. These stories that constitute a network of activities linked together by their subjects or by their protagonists are conditioning every dimension of oracy. The mobility of the iTEO app engendered through the iPad tool allows for a flexible and creative use by the children and by other partners, thus enriching the children's productions. Consequently, I do no longer conceive of my practice in our classroom without the use of this tool.

When I ask Flavie today “Is Luxembourgish now in your head?” she humbly answers me with an embarrassed smile: “Yes, a little.” In parallel with the evolution of her relationship with the iTEO tool she has developed herself and her role in her class and finally established herself with her Luxembourgish ‘voice’, too.

"The key is curiosity, and it is curiosity, not answers that we model. As we seek to know more about a child, we demonstrate the acts of observing, listening, questioning and wondering. When we are curious about a child's words and our responses to those words, the child feels respected. The child is respected. "What are the ideas that I have that are so interesting to the teacher? I must be somebody with good ideas.” (Paley, 1986, 127)

In her concluding remarks the teacher characterises iTEO as a tool-and-result that operates as a propeller of development in her preschool setting. This is all the more so as in their work of creating stories and languages with iTEO the children can engage in a network of connected multimodal activities that at the same time guarantee a constant flow of spontaneous multilingual activities even in the absence of the teacher. The teacher considers structural features of iTEO and of the iPad such as mobility, flexibility and creativity as essential to the ongoing language learning processes. Learning opportunities are thus extended and unfinalisable through the incorporation of new partners and auditors being addressed and drawn into new dialogues through automatic and/or deliberate replay of the recorded stories or utterances.
The teacher’s description and explanation of the children’s activities with and around the work with iTEO have contributed to the development of the app into a tool linked to portfolio work: iTEO2. iTEO2 encapsulates the complex process of language production and of language development with iTEO that goes far beyond the simple standard statements in official documents that are bemoaned by the teacher. She is aware that a productive learning environment can and must endure differentiated forms of valuation and evaluation with subtle moments of patience, hesitation, contestation and vulnerability in between. Flavie’s short answer “A little” is a witness of these complexities, but at the same time it illustrates a Van Morrison song line, ‘The best is yet to come’ and refers to the concept of prolepsis in learning experiences which is “a form of looking ahead, of assuming something to be the case before it has been encountered, a foreshadowing in some sense (Van Lier, 2004, p. 152).”

iTEO2 can develop into a complex record of language learning trajectories that differ significantly from “‘assessment’ (…) represented by standardized tests, which call for ‘short answers’ such as multiple choice and sentence completions and allow little or no room to interpret or relate text to personal experience (Brice Heath & Mangiola, 1991, 46, 47).” A long time ago Tolstoy has alluded to this dilemma: “To the teacher, the simplest and most general appears the easiest, whereas for a pupil only the complex and the living appears easy – only that which demands interpretation and provokes thought is easy (Tolstoy, (1862) 1967, 289).”

Of the highest importance in the chronological language learning records is the value attached to the children’s and others’ utterances with all nuances, ambiguities and uncertainties, not just the right or wrong of national testing procedures and, hence, the primacy of listening instead of responding to simple stimuli or questions: “If you do not

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1 “The basic stuff of human learning - behaviors, motivations, and intentions - cannot be ‘standardized’ or measured, for psychological, social, and cultural ‘laws’ shed their predictability with altered contexts (Brice Heath & Mangiola, 1991, 50)."
think you need to know what children think and feel, you are not concerned with individuality or productive learning. You become a cause and overseer of unproductive learning. Knowing what students think and feel contributes to the self-correcting process (Sarason, 1997, 76, 77).” As Sarason rightly points out, the intense listening to other’s utterances will ultimately lead to self-evaluation and self-correction by all partners in the language learning process.

The development of iTEO2 will profit from this teacher’s experiences of tracing the learning processes of her children through a deliberate view on learning as a co-operative and a co-constructive experience that is woven in a ‘web of interrelated institutions’ (Ratner, 1997, 8), i.e. family, home, school, leisure, … iTEO2 will thus enable teachers to describe multimodal and multilingual action sequences and to observe the process of reaching a solution or a final product (Valsiner, 1989, 67).

The ultimate aim of the development of iTEO2 as a multimodal portfolio and learning record device is to enable us to study “(…) how competent actors construct shared workspaces and arrange resources and tools to assemble readily interpretable surfaces that facilitate collaborative action (Streeck & Goodwin & LeBaron, 2011, 10).” The tracing of learning then extends to other domains than the language learning alluded to in this paper. Aesthetic biographical work and science activities too can be traced as children learn to speak and to act “(…) appropriately for the spaces that they inhabit in a given environment (Tulbert & Goodwin, 2011, 87).” Methodologically, iTEO2 can be considered as a ‘material anchor’ (Hutchins, 2005) for the somewhat choreographed, somewhat improvised series of learning activities in daily life. The iTEO2 recordings are inscriptions that can be pointed to in a direct continuation of the developmental path in the acquisition of skills. These recordings offer interpretative propensities (Enfield, 2011, 61) and critical reviews through opportunities for repeated consulting or listening that may be automatic or consciously and responsibly provoked by the actors.
The teacher concludes her contribution to the dialogue with the researcher with a quotation by Vivian Gussin Paley. Paley praises curiosity as essential to the teaching and to the learning process as it engenders a respect for the voices of all the partners in dialogue. We all feel trusted as knowledgeable persons if someone shows heartfelt interest in what we are currently thinking, knowing and longing for. This is the unique responsibility that we have as we address others in dialogue, as we want to trace our lines in a developmental process and as we value others’ contributions to our community. Valuation comes before evaluation, self-valuation must precede self-evaluation, these are lessons that especially teachers must be prepared to attend. Paley made this clear in a contribution (that I want to set aside Rosalba Donatiello-Marinelli’s quotation) at the 92Y Wonderplay Early Childhood Learning Conference on November, 14th, 2008:

“You – one on one – can be kind to each child. You need no permission from anyone to look every child in the eye and make the child understand how you respect him and her and how you want to carry on this conversation … and how much you love the child’s play and talk and everything about the child how necessary the child is to you … you will never do a more important thing in your life, new teacher, old teacher, middle size, … this is the great gift we give to each child every day and if you come home and realize: I didn’t talk to John the whole day, the next morning John is the first one you talk to. Nothing replaces that and any new teacher or student teacher can do it every single day and you will commit the greatest act of kindness that is possible in the profession of teaching.”
In such a process of communication between simultaneous differences (Clark & Holquist, 1984, 9) dialogical language learning can take place. It tolerates imperfections, silent phases, explorations, Freinet’s ‘tâtonnement expérimental’ (Freinet, 1994), playful experimentations, joy and tragedy whereby each partner can select his/her individual entry point into the collective on-going dialogue. The actual and latent abilities of persons are alive in these zones of communication, of dialogue, of frustration and of contestation. The valuation of differences and of diversity allows for a variety of learning potentials that can be detected, tapped and developed dynamically. Flavie was then able to join this evolutive and self-reflexive process and haltingly but consciously engaged into transforming and adapting the process of storying with iTEO to her own needs in language learning. Storying as a team activity with iTEO and iTEO2 is based on interactions and dialogues between several pupils and/or other partners involving the construction, interpretation and negotiation of meaning, emotion and identity. Such a collective experience simply does not exist at the level of examinations and evaluation procedures in fundamental and secondary schools. Similarly, the simultaneous use and learning of several languages so prominent in the activities mentioned above does not figure in any official curriculum. Hence, storying as a collective activity of the iTEO and iTEO2 team needs to be legitimated by each teacher in the face of curricular needs. The teacher must be prepared to operate a shift away “(...) from language as an isolated, self-contained system, to (...) the rich semiotic and communicative ecology within which language is embedded through human conduct (Streeck & Goodwin & LeBaron, 2011, 14).” The teacher can then discover the hidden linguistic resources of children in the interstices of bodily behaviours, hesitancies, pauses, emotions and silences originating from hybrid funds of knowledge hidden in objects, plays, activities, friendships, conflicts and families.
A final note on the process of co-voicing between teacher and researcher

Many of the factors influencing the learning of languages mentioned above can be applied to the co-voicing of teacher and researcher in the discussion of Flavie’s statement. This discussion or dialogue requires neither opposition of meanings and of interpretations nor even transitory resolution of seemingly contradictory positionings (Emerson, 1997, 72). The process of co-voicing as published in this paper is definitely not creating a mechanical or logical identity of views on language learning and on the educational context. It is not a cumulative echo of the teacher’s statements that are simply expanded by the researcher’s scientific scaffolding. Even if positions are drawing close, there can never be a fusion, although the distance between the two genres is transcended. Co-voicing does not mean co-sounding. In co-voicing there is always an element of the unexpected, of the gift, of the miracle, because dialogic co-voicing, by its very nature, is free – that is, it is not predetermined, not inevitable (M. M. Bakhtin, in Emerson, 1997, 72). Intense listening to each other’s contributions is essential to the continuation of the dialogue and of the co-voicing across the genres and across the modalities. Teacher and researcher will continue their unfinalisable dialogue in other settings in the educational arena and move from the paper to a dialogical presentation in the form of a discussion and a continuation of the argumentation.

The co-voicing of teacher and researcher respects each partner’s contributions in the exploration of the conditions that make dialogical language learning unavoidable in Luxembourg’s multilingual and multicultural context. The deep solidarity between teacher and researcher fosters critical insights into the value of differences and of diversity in a learning community. The co-voicing of teacher and researcher may lead up to a genuine understanding of multilingual language learning processes in our country, an understanding that is always dialogic. As teacher and researcher are explaining their
views on the learning situations and as they are striving for reaching an understanding, they must necessarily respond, resist, develop their understanding in their own way, fail to get it and so on:

“Neither party should seek “essences” (there are none), nor perfect reconstructions of a past context, nor full consensus. And at no point does either side know anything for sure (Emerson, 1997, 62).” At times the co-voicing and dialogue may be immediate as during the discussion of this paper in a conference or delayed as in versions of this paper, as in e-mails and as in past or future common projects.

Bibliography


