The ORCIT project (Online Resources for Conference Interpreter Training) was launched in September 2010 and is currently in its sixth successive year. ORCIT is a multilingual and interactive learning resource with a designated website (www.orcit.eu) which offers pedagogical best practice in interpreter training. Focus of the modular resources is on six main competences necessary for successful training: listening and analysis; mastery of the mother tongue and public speaking; early and advanced consecutive interpreting; early and advanced simultaneous and research skills.

In ORCIT, we are near the stage where the corpus of material is substantial enough to subject it to empirical evaluation. Extra funding is currently being sought to launch evaluation in October 2016. By definition, in any learning environment, including a technology-enhanced environment, the overall goal for both the student and the teacher is to expand and consolidate the student’s knowledge of the subject and to improve performance. Therefore the aim of an evaluation of ORCIT would be to assess the use of the resources in a blended learning environment. A proposed theoretical framework which could provide a suitable platform for an experimental design is Diana Laurillard’s the Conversational Framework and a classification of five media forms (Laurillard 1993 & 2002). Relevance of the Conversational Framework and five media forms to ORCIT are the subject of the discussion in this paper. The focus is on the media forms which would assist in the evaluation design.

BACKGROUND: TECHNOLOGY ENHANCED LEARNING AND OPEN EDUCATIONAL RESOURCES (OERs)

In September 2013 the European Commission launched its initiative ‘Opening up Education through New Technologies’ (European Commission, 2013 [1]). The initiative was aimed at improving education through ICT tools and making knowledge more accessible to learners in the EU and beyond. This follows on from the Europe 2020 strategy [2], which makes the need for open access (OA) in education a priority area, due to the growing demand for education on one hand and cost constraints on
the other. ‘With several EU countries reducing their public investment in education, solutions for a more effective use of resources are needed’ (European Commission, 2013 [1]).

Cost constraints in education have historically been a subject of heated debates, but since the 2008 economic crisis this issue has come to the top of the political and social agenda. The Iron Triangle concept\(^1\), referring to “the assumption that quality, exclusivity, and expense necessarily go together” has dominated past debates on education and higher education (HE) in particular (Daniel in Sabadie et al, 2014). ‘It is impossible to widen access, lower cost and increase quality at the same time: any improvement along one of these axes will always be detrimental to at least one of the other axes’ (ibid). The proponents of open access education therefore argue that Opens Educational Resources (OERs) and Massive Open Online Courses (MOOCs) can loosen the grip of this “Iron Triangle” improving quality of higher education at lower costs and stimulating innovation in universities (ibid).

In the second half of the 20th century, technological innovations such as computer assisted translation tools had not only led to a significant increase in translators’ productivity but had also provided support to translator trainers in universities to compensate for the reduction in contact hours on courses (Kiraly 2000). Likewise interpreting training has experienced a trend of contact hours reduction and interpreter-trainers have also started looking more closely at technology enhanced learning: ‘In an attempt to offset the negative effects of reduced contact hours, teachers of interpreting are encouraged to take advantage of cost-effective methods, including technology-assisted self-study sessions and offline practice’ (Hansen, Shlesinger 2007, 95).

The first attempts at the experimental use of technology in training of interpreters took place at the end of the last century and were primarily limited to speech repositories such as those of the IRIS & Marius projects (Sandrelli, Jerez 2007, 278–279). Some inspiration came from the proliferation of authoring tools in the 1990s, and exciting projects were launched in the UK at the University of Hull, to address interpreter training pedagogy. These projects were Interpr-It 1995, Interpretations 1999, and Black Box 2002\(^2\). A major development in interpreter training material was the launch of the SCIC Speech Repository in 2004, and further developments followed in the area of Virtual

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\(^1\) Borrowed from the US politics.

\(^2\) The tools at Hull were developed by Annalisa Sandrelli who later moved to Italy implementing the use of the Black Box at the University of Bologna in parallel with Spanish colleagues at the University of Granada.
Learning Environments – the launch of Geneva Virtual Institute (2006), introduction of EU Virtual classes (circa 2010) and the project IVY led by the University of Surrey [3]. Of these named projects, only IVY produced an OER; some parts of it are readily available to users online with accompanying guidance on its use [4].

An unexpected boost to making interpreting and interpreting-related resources available online on a truly open access basis came from the UK Government-funded project Routes into Languages (2007 launch) and the creation of the National Network for Interpreting website with a multitude of interactive open access resources on interpreting themes [5]. Once created, the success of the website and its resources was unprecedented with almost 4,000 visits per month and rewarding feedback from its users. Following on the success of the NNI web project, the NNI team sought EU funding to create open access resources aimed at professional interpreter-training. The funding for the open access ORCIT (Online Resources for Conference Interpreter Training) resource came from the two EU institutions providing interpreting services within the EU, SCIC\(^3\) and the European Parliament. ORCIT resources are modelled on a structured approach to conference interpreting training as practiced on many European courses and follow the standards set by the leading European schools. They complement classroom training and could be used to support distance- and blended-learning modes of training. However, the resource is not a stand-alone training package to be used without the guidance of qualified trainers.

ORCIT materials appear in a bookshelf format across eight EU languages – English (the prototype resources), Czech, French, German, Greek, Lithuanian, Slovenian and Spanish. Each language has its own web page and the aim is to produce at least sixteen resources which appear as books on each webpage. The English page when complete will have 18 resources. On www.orcit.eu a set of two books represents a narrative introduction to the six techniques (listening and analysis; mastery of the mother tongue and public speaking; early and advanced consecutive interpreting; early and advanced simultaneous and research skills) and interactive exercises requiring students to complete various tasks, one step at a time. Overall the resources provide a coherent pedagogical framework in a step-by-step e-format which should allow tutors and students to take an active role in adapting material to their own needs. Being an open resource, the materials could offer a pedagogical template for trainers to develop resources in their own languages, those that are not represented on the bookshelves.

\(^3\) Interpreting Services of the European Commission.
Since ORCIT’s launch and independently of it, other open access (OAs) resources with interpreting themes have sprung up and this is in addition to social media resources (e.g. SCIC Facebook). One of the most popular websites incorporating educational material is ‘A Word in Your Ear’ [6]. Two years ago SCIC launched its own OA resource SCICtrain which was an instant international success [7].

THEORETICAL FRAMEWORK FOR ORCIT

An observation made in 2002 by two leading UK experts on e-learning, Conole and Oliver, is pertinent to the current e-learning scene. It states: ‘Expert and theoretical knowledge about the use of learning technology is not always available to practitioners’ (Canole, Oliver 2002, 1). In the case of the web-based open access resource ORCIT, theoretical knowledge indeed did not precede the design, nor did it influence the final product. Rather technological and pedagogical practitioner expertise was brought together to work on e-learning materials. This is generally the norm of how e-learning resources are created – Subject Matter Experts (SMEs) are paired with e-learning technologists on a collaborative basis. In the best case scenario, SMEs are paired with instructional designers (Duffy, Cunningham 1996) – highly qualified experts who are well-versed in learning theories. However, this model of collaboration would make e-learning projects prohibitively expensive. A more intuitive approach, sometimes through trial and error, has been applied in the creation of ORCIT resources.

ORCIT has hugely benefitted from sound pedagogical input by SMEs, as these individuals are not only highly qualified professional interpreters but also highly qualified interpreter trainers, in other words ‘highly qualified practitioners’ (Laurillard 2002b, 142). Therefore when we speak of an intuitive approach to resource creation we primarily refer to the absence of theoretical underpinning of the learning design. However, sound pedagogy born of experience is beyond any challenge. In ORCIT we started with ‘design as practice’ where ‘designing for learning involves the designer taking an orientation, assuming a stance and acquiring a posture’ (Seale et al. 2007, 122). ‘Stance’ and ‘posture’ aside, backed by considerable professional experience, ORCIT designer-practitioners adhered to the well-established learning design norms where consideration of learning objectives, learners’ needs and learning outcomes came first. This is all in line with the prevailing learning theories and as described by Diana Laurillard: ‘The design of learning material for any medium should always begin with the definition of objectives and analysis of student learning needs’ (Laurillard 1994, 181–182).
Currently in interpreting studies and technology-based interpreting training pedagogy, the most popular borrowed theory is the cognitive constructivist approach (Vygotsky 1962; Piaget 1973; Gagné 1965) which encompasses related branches such as collaborative and blended learning, reflective and experiential learning and the communities of practice model (Kolb 1984; Wenger 1998; Kiraly 2000). The blended learning approach forms the foundation of the Certificate for interpreter trainers offered by the Geneva Virtual Institute. The certificate is offered partly as distance learning and partly on a face-to-face basis. The precise nature of the type of learning is summed up in a paper published by the Certificate providers in 2004: ‘Today blended learning refers not only to the delivery modality – face-to-face and on-line sessions – but to a whole set of didactic concepts such as self-paced and collaborative learning, structured and unstructured learning, custom and off-the-shelf content, supplementing learning with practice and just-in-time performance’ (Class et al. 2004, 4; see also Class, Moser-Mercer 2013). Blended learning which constitutes an element of the cognitive constructivist approach, is highly advocated by the ORCIT team: ‘interpreter trainers can point their students to the website when introducing new concepts in class, and students can follow up on the theory learnt in the classroom by consulting the ORCIT website to consolidate their learning. The resource can be used in many ways: to recap theory, to gain a different perspective on the same material, or to work through relevant exercises. In this way, ORCIT acts as a reference work: a kind of online interpreting manual that can be consulted at leisure’ (Carsten et al. 2012, 7). Similarly ‘reflective learning,’ ‘learning with others,’ and ‘knowledge’ and ‘practice’ (Jarvis 1987; Dyke 2001; Conole et al. 2004; Doğan et al. 2009) are the concepts pertinent to the learning approaches in the use of ORCIT resources. Such concepts continue to provide a theoretical underpinning for educational researchers and practitioners, including in the e-learning domain. Hansen and Shlesinger, in their 2007 publication on the use of technology in the interpreting classroom, point out that the technology enhanced curriculum design in their case did not begin with a research framework in mind but rather started ‘from practice and worked back from it to theory’ (2007, 95). ORCIT is a similar case in point. A theoretical framework was not the starting point, but could justify ORCIT’s aims in enhancing students’ learning experiences, especially when planning an experimental design for the evaluation of the resource.

The approach which could potentially accommodate the ORCIT learning environment and which is both learning theory and a practical framework is that of Laurillard’s Conversational Framework and her classification of the five principal media forms of learning experiences. The classification of the five principal media
forms follows on from Laurillard’s Teaching Strategy, which she describes as ‘an iterative dialogue between teacher and student’ (Laurillard 2002a, 76). The strategy is introduced in her book *Rethinking university teaching: a conversational framework for the effective use of learning technologies*4. The term ‘conversational’ in the title of the Conversational Framework refers to a dialogical approach in discussing the learning environment. The ‘dialogue’ can take place implicitly, as long as learning needs are specified. In ORCIT the six competences specify six topic goals and sub-goals and ‘the learner’s narrative line is determined and supported by the teacher’s resource design’ (*ibid*, 115). Laurillard maintains: ‘The best expression of an empirically based teaching strategy is an interactive dialogue between teacher and student focused on a topic goal’ (*ibid*, 77–78). Full interactivity, i.e. face-to-face dialogue, is not the feature of OERs but the dialogical framework with intrinsic feedback built into the resources is present in the design of ORCIT.

We will now consider the progression of the dialogue grouped by Laurillard as four distinct aspects. We will also attempt to ascertain to what extent Laurillard’s classification is relevant to ORCIT. Laurillard points out that most media ‘was not developed as a response to pedagogical imperative’ and ‘they do not easily lend themselves to a pedagogical classification’ (*ibid*, 83) but she insists that ‘educational media should be classifiable in terms of the extent to which they support the interpersonal and internal dialogue forms’ (*ibid*, 84).

**Classification of educational media**

- **Discursive** – both teacher and student agree on the topic goals, they are informed of each other’s conceptions; students should be able to generate and receive feedback. (These activities are represented as 1-4 by Laurillard (Figure 1).)
  (Discursive element is present implicitly in the ORCIT design as it is built through the experience of real classroom interaction. Feedback is intrinsic and is also modelled on real classroom interaction. Recommended use of the resources in the classroom would satisfy fully the discursive aspect of the Conversational Framework.)

- **Adaptive** – both parties adapt their conceptions and goals in the course of the continuing dialogue; students adapt their actions to achieve the task goal (as represented by 5 and 10 in the model below).

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4 This edition will be quoted thereafter.
(The adaptive element is eminently applicable to the student in ORCIT. For the teacher it is restricted to a ‘one-off design of the environment’ (ibid, 116) which is a product of previous classroom experience and subsequent adaptations.)

- Interactive – the teacher provides the task environment for the student to act on; students receive meaningful intrinsic feedback on their actions that relate to the nature of the task goal; meaningful changes follow as a result of their action (represented by 6 to 9).
  (ORCIT ‘exercises’ correspond mostly to the interactive aspect of the Conversational Framework)

- Reflective – the students reflect on the task goal, their action, the feedback and link all this to their conception of the topic goal; the teacher supports students’ learning experience through adaptation (represented by 11 and 12).
  (The step-by-step structure of ORCIT resources compels the student to reflect on his/her action; intrinsic feedback is built in the design. Adaptation for the teacher is restricted to a ‘one-off design of the environment.’)

Below is the schematic representation of Laurillard’s Conversational Framework:

![Figure 1. The Conversational Framework identifying the activities necessary to complete the learning process. Source: Laurillard 2002a, 87.](image-url)
This strategy promotes continuous interaction between teacher and student creating learning rich environment. Having considered three mainstream theoretical approaches to learning – instructional design, intelligent tutoring system and constructivist approach – with this mode Laurillard comes up in favour of the interpretivist paradigm and phenomenography, i.e. qualitative research methodology. With the reference to studies by Marton and Ramsden (1988) and Marton and Booth (1997) among others, Laurillard states: ‘I found phenomenography a more fitting approach. The cooperative style is more democratic, giving full representation to students’ as well as teachers’ conceptions.’ She maintains that this is ‘how the iterative dialogue should be conducted’ (ibid, 76). According to this model the student has learning autonomy but receives support and is guided by feedback in attainment of the specified learning goals. Laurillard also proposes that this strategy ‘provides a structure capable of its own improvement’ (ibid, 78).

What is interesting in this model in relation to ORCIT is that, according to Laurillard, the Conversational Framework can be applicable to any learning situation for describing the learning process (ibid, 87). The ‘dialogue may never include action-in the-world’; it may only refer to former experience or ‘thought experiments’ but the core structure of a dialogue as mapped out by the Conversational Framework ‘remains two-level,’ i.e. ‘(1) the discursive, theoretical, conceptual level and (2) the active, practical, experiential level—the two levels bridged by each participant engaging in the processes of adaptation (practice in relation to theory) and reflection (theory in the light of practice)” (Laurillard, 2002b, 144). She furthermore maintains that ‘the dialogue may never take place explicitly between teacher and student. It could be a purely internal dialogue with the student playing both roles.’ Completion of the learning process in any learning activity ‘must come from the student’s own internal dialogue’ (2002a, 88). In ORCIT case scenario if the student works on his/her own or in a peer group, the ‘step-by-step’ structure of ORCIT modules provides the learning environment where the student is compelled to engage in an ‘internal dialogue.’ To give an example, in the resource entitled Listening and Analysis Skills, Introduction and Exercises, the student has an overall goal of developing analytical skills which he/she needs as an interpreter. He/ she follows a set of conceptions, guidance and instructions prescribed by the teacher and in the Exercises section (http://www.orcit.eu/resources/lae-en/story.html) is given the task to reflect on the most important points of the speech provided. The ‘internal dialogue’ will result in action and intrinsic feedback will be obtained from the list provided by the teacher for the comparison purpose. The next stage would be to test the skill in the classroom to complete steps 8 to 11 as represented in Figure 1.
FIVE PRINCIPAL MEDIA FORMS AND THEIR RELEVANCE TO ORCIT

At this point it would be useful to assess to what extent ORCIT as a multi-media educational resource fits in the classification of educational media proposed by Laurillard. The analysis of the educational media occupies a major part of *Rethinking university teaching*. Having established a teaching strategy (framework) which encompasses ‘interdependent relationships between all the aspects of the learning process’ (Laurillard 2002a, 90), Laurillard maintains that ‘on that basis educational media should be classifiable in terms of the extent to which they support the interpersonal and internal dialogue forms’ (*ibid*), those of discursive, adaptive, interactive and reflective. As shown in Table 1, she proposes five media forms with the corresponding learning experiences and the delivery methods.

<table>
<thead>
<tr>
<th>Learning experience</th>
<th>Methods/technologies</th>
<th>Media forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attending, apprehending</td>
<td>Print, TV, video, DVD</td>
<td>Narrative</td>
</tr>
<tr>
<td>Investigating, exploring</td>
<td>Library, CD, DVD, Web resources</td>
<td>Interactive</td>
</tr>
<tr>
<td>Discussing, debating</td>
<td>Seminar, online conference</td>
<td>Communicative</td>
</tr>
<tr>
<td>Experimenting, practising</td>
<td>Laboratory, field, trip, simulation</td>
<td>Adaptive</td>
</tr>
<tr>
<td>Articulating, expressing</td>
<td>Essay, product, animation, model</td>
<td>Productive</td>
</tr>
</tbody>
</table>

Source: Laurillard 2002a, 90.

Laurillard explains that the narrative media ‘are the linear presentational media’ and includes print, audio and video forms of media, TV and DVD. Interactive media are ‘delivered in an open user-controlled environment’ and include hypertext, hypermedia, multimedia and web resources as well as internet-delivered television (*ibid*, 107). Communicative media require the participants to interact and fall under the discursive category of the Conversational Framework. The participants could be tutors and students or students and students. These media include seminars and tutorials, computer-mediated media – email, video conferencing, Skype, etc. This type of media also offers a practical solution to facilitate communication between people in cases when they are separated by distance. ‘The adaptive media are the computer-based media’ which can be changed/adapted by the user. It does not require any ‘response’ as communicative media do (*ibid*, 126). The productive media Laurillard points out
are ‘construed entirely from the demands of the Conversational Framework.’ This is when students need to take action and when they are required to make ‘their own contribution’ (ibid).

Depending on the particular design of OERs, they could potentially fit all forms of the listed media, if not fully then in part and with a varied degree of correspondence to the Conversational Framework. Set goals and learning outcomes would inevitably determine this correspondence. The multimedia ORCIT resources, which consist of nine introductory and nine guided exercises modules (it is eight and eight for non-English resources), fit if not fully then in part most of these media forms, especially the narrative and interactive ones. The resource, Listening and Analysis Skills, Introduction and Exercises, has the Introduction part as a narrative form and Exercises as interactive, whereas Early Simultaneous Exercises has both components built in: http://www.orcit.eu/resources/ese-en/story.html. Communicative media with their inbuilt tutorials apply to some activities in ORCIT – the Audience section, for example, in Mother Tongue Introduction: http://www.orcit.eu/resources/mti-en/story.html. Early Consecutive Exercises: http://www.orcit.eu/resources/ece-en/index.html conforms to productive media which enable students to produce their own contributions. Some ORCIT modules with the built-in exercises capable of accepting learner’s input also conform in part to adaptive media as in both Exercises sections of Listening and Analysis and Early Consecutive. ‘It “knows” what the user has done in its world and can therefore provide direct intrinsic [inherent] feedback on their action’ (ibid, 126). The ability of software to give intrinsic feedback on students’ actions ‘is unique’ to the teacherless learning environment. For Laurillard’s Conversational Framework, feedback is critical: ‘For the fully supported learning process students need to receive meaningful intrinsic feedback on their actions.’ ‘The goal-action-feedback cycle constitutes the core of the interactive level of the Conversational Framework’ (ibid). She argues that because of this feature of the adaptive media ‘it is possible for the student to use the intrinsic feedback [provided by computer] to improve their performance’ (ibid). In ORCIT Making Feedback Work resource offers a demo of adaption on screen but could be replicated in a real classroom or simulated learning environment. Books marked as ‘Introduction’ do not conform to adaptive media for the reasons that the activity cannot be changed or adapted ‘in response to the user’s actions’ (ibid).

In Table 2 Laurillard offers analysis of educational media by degree of how it fits to the Conversational Framework:
Table 2. Media comparison by degree of fit to the Conversational Framework

<table>
<thead>
<tr>
<th></th>
<th>Narrative</th>
<th>Interactive</th>
<th>Adaptive</th>
<th>Communicative</th>
<th>Productive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T can describe conception</td>
<td>✓</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>S can describe conception</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>T can redescribe in light of S’s conception of action</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>S can redescribe in light of T’s redescription or S’s action</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>5</td>
<td>T can adapt task goal in light of S’s description or action</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>T can set task goal</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>S can act to achieve task goal</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>T can set up world to give intrinsic feedback on actions</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>S can modify action in light of feedback on action</td>
<td>0</td>
<td>✓</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>S can adapt actions in light of T’s description or S’s redescription</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>S can reflect on interaction to modify redescription</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>T can reflect on S’s action to modify redescription</td>
<td>0</td>
<td>0</td>
<td>✓</td>
<td>0</td>
</tr>
</tbody>
</table>

T – teacher  
S – student/s  
Source: Laurillard 2002a, 174.

On the basis of this comparison, we can demonstrate where exactly ORCIT fits in the Conversational Framework model. It falls under the narrative media form (in this case audiovisual) and web-based interactive media ‘delivered in an open, user-controlled environment’ (Laurillard 2002a, 107). As stated earlier, some modules also include elements of communicative, adaptive and productive media. Should the resource form part of a collaborative learning experience, i.e. become integral part of the curriculum, communicative form would be fully applicable.

In order to compare ORCIT resources to Laurillard’s media classification we will number the books to enter them in the classification of Table 3: Listening and analysis: Introduction (1), Exercises (2); Mother tongue: Introduction (3), Exercises (4); Public speaking: Introduction (5), Exercises (6); Early consecutive: Introduction (7), Exercises (8); Note-taking: Introduction (9), Exercises (10); Early simultaneous:
Introduction (11), Exercises (12); Advanced simultaneous: Introduction (13), Exercises (14); Research skills: Introduction (15), Exercises (16); Keeping calm (17); Making feedback work (18).

Table 3. ORCIT relevance

<table>
<thead>
<tr>
<th></th>
<th>Narrative</th>
<th>Interactive</th>
<th>Adaptive</th>
<th>Communicative</th>
<th>Productive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>T can describe conception</td>
<td>✓ (all Introductions &amp; 17)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>S can describe conception</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>✓ (3,5,15,18)</td>
</tr>
<tr>
<td>3</td>
<td>T can redescribe in light of S’s conception of action</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>✓ (3,5,15,18)</td>
</tr>
<tr>
<td>4</td>
<td>S can redescribe in light of T’s redescriptions of S’s action</td>
<td>0</td>
<td>0</td>
<td>✓ (3,5,15,18 &amp; all exercises)</td>
<td>✓ (all exercises &amp; 18)</td>
</tr>
<tr>
<td>5</td>
<td>T can adapt task goal in light of S’s description or action</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>T can set task goal</td>
<td>0</td>
<td>✓ (all exercises &amp; 18)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>S can act to achieve task goal</td>
<td>0</td>
<td>✓ (all exercises &amp; 18)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>T can set up world to give intrinsic feedback on actions</td>
<td>0</td>
<td>✓ (2,4,8,10,14 &amp; 18)</td>
<td>✓ (2,4,8,10,14 &amp; 18)</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>S can modify action in light of feedback on action</td>
<td>0</td>
<td>✓ (10,14 &amp; 18)</td>
<td>✓ (10,14 &amp; 18)</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>S can adapt actions in light of T’s description or S’s redescriptions</td>
<td>0</td>
<td>0</td>
<td>✓ (10 poss, 18)</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>S can reflect on interaction to modify redescriptions</td>
<td>0</td>
<td>0</td>
<td>✓ (10 poss, 18)</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>T can reflect on S’s action to modify redescriptions</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>
Interactivity is the main characteristic of ORCIT and it would be fair to give some further thought to this feature. In Laurillard’s words ‘interactive refers to a medium in which user can navigate and select content at will’ (Laurillard 2002a, 107). In her analysis of the interactive media Laurillard points out a number of limitations particularly in the iteration aspect. With regard to the discursive iteration between teacher and student she states that this cannot offer a ‘continual loop because the system cannot respond to the student’s questions with other than the same pre-scripted reply to a particular question’ (ibid, 110). Similarly in interactive iteration the tasks ‘cannot be developed in response to the student’s level’ as in a tutorial, for example. But if the task is pre-set ‘continual iteration of the student’s action, a response to that action and then a further response by the student’ are achievable (ibid). Laurillard calls this ‘the adaptive-reflective iteration’ and the success of it is conditional to the student having set a ‘clear person goal.’ The teacher’s input here is limited to the adaptive role, a ‘one-off design of the environment’ (ibid, 116), and this is exactly where ORCIT sits. Even in enhanced hypermedia which incorporates guidance features to support students in their productive learning activities (as is the case with ORCIT) ‘the responsiveness of the interactive medium is limited’ as the students cannot test if their interpretations are correct except by comparing these to the model answers provided as is the case with most Exercises in ORCIT (ibid, 118).

Having discussed the theoretical rational of the Conversational Framework and five media forms classification, the next step for us would be to consider, through evaluation, their practical application to ORCIT media forms. The aim would be

• To define the ORCIT learning environment (e.g. could we consider it as an iterative dialogue with a focus on a topic goal/sub-goals?);
• To ascertain which features (or media forms) of the ORCIT resources are expected to support students’ learning experiences best;
• To determine whether ORCIT media forms lead to improved performance.

CONCLUSION

ORCIT resources have not yet been empirically tested to evaluate to what extent they have met the set objectives and learners’ needs. The task so far has been to create multilingual resources as an aid to classroom teaching. Some qualitative evaluation has been carried out through instructor and student feedback to ensure the resources fit the purpose. However, the next step would be to subject ORCIT to rigorous evaluation backed by sound pedagogical theory. The Conversational Framework may provide a basis for this challenging task.
References


Mapping a Theoretical Framework for ORCIT


**Website references**


**ORCIT ĮSTEKLIŲ VERTINIMO METODIKOS TEORINIS MODELIS**

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