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Fostering Democratic Competences in Learners: An Interdisciplinary International Experience

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ABSTRACT

This article presents an analysis of a teaching concept we developed based on the Reference Framework of Competences for Democratic Culture (RFCDC) (Council of Europe, 2018), that not only provides opportunities to practice communicative skills but puts a major focus on democratic competences. Mathematics students and TEFL (Teaching English as a Foreign Language) students from the USA and Germany engaged in a virtual exchange project to reflect upon local and global issues that can be seen from more than one perspective. The topics they chose are all related to the domain of 'values' in the RFCDC. The students created short stories in which they address these issues and collaborated in the production of a multimodal, digital storybook. The aim of this article is to examine how education for democracy can be fostered through interdisciplinary intercultural citizenship projects. The unit of analysis is the teaching concept, with a focus on the results of the interdisciplinary collaborative process and its outcomes.

Keywords: democratic competences; intercultural citizenship education; interdisciplinarity; foreign language education; mathematics education

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Introduction

There is no question that as the world continues to become more interconnected, a shared concern grows within the international community about many critical issues that extend far beyond national and cultural boundaries. Many of these pervasive problems are exacerbated by political instability, social injustice, inequality and disrespect of human rights. Finding solutions depends greatly on our ability to communicate and collaborate across different cultures (interculturality) and on our capacity to converge ideas, perspectives, and methods from various disciplines (interdisciplinarity). As educators, we recognize our responsibility in designing learning experiences to help our students develop, practice, and strengthen these vital skills that they will need in order to work with others to better understand and conceivably resolve current and future critical issues.

Using the *Reference Framework of Competences for Democratic Culture* (RFCDC) (Council of Europe [CoE], 2018), we developed a learning activity that not only provides opportunities to practice interdisciplinary communicative and collaborative skills across cultures but puts a major focus on fostering democratic competences in our students. One benefit of the framework is its conceptual model which organizes the competences clearly and concisely, making it readily available for planning and implementation purposes. Another benefit is its focus on the values that are necessary for meaningful participation in a democratic culture and engaging in intercultural dialogue, attending to our main concerns described above. We used the RFCDC as a basis to define learning objectives, select and create the teaching materials, as well as guide and evaluate our progress.

In this paper, we introduce the learning experience and its promising outcomes by presenting the results of a qualitative study of its implementation. We begin with an overview and discussion of intercultural citizenship education within the realm of foreign languages and emphasize its relevance across STEM subjects (i.e., science, technology, engineering, and mathematics), recognizing its suitability for interdisciplinary learning. We then offer a detailed description of our project and highlight its connections to the RFCDC. Subsequent sections are focused on the research study, including a presentation and discussion of our results. Then, we focus on insights gained from our implementation about the value of the cross-cultural and cross-curricular dimensions for educational practice. We conclude with a call for others to participate in similar efforts to support our students for the future that awaits them.

Interdisciplinary intercultural citizenship education

Especially against the backdrop of increasing globalization, foreign languages are used to conclude international business deals and establish partnerships. Foreign language education is highly suitable to foster the required competences as the intercultural focus is inherent and the competent use of foreign languages often involves heavy responsibility. Our project follows the principles of Intercultural Citizenship Education (ICE), a pedagogy developed by Byram (2008) that incorporates intercultural and democratic learning objectives. ICE “takes place when people of different social groups and cultures engage in social and political activity” (Byram, 2008, p. 186). It is this social and political engagement that distinguishes ICE from previous models of intercultural education (Bennett, 2004; Byram, 1997) and empowers learners to initiate change. ICE therefore contributes to preparing learners to use the foreign language in a meaningful and responsible way that benefits the society and uses reference norms that go beyond national boundaries.

Not surprisingly, ICE is not exclusive to foreign languages, but is also frequently incorporated in other subjects such as social studies. Perhaps less familiar is its relevance and value to better support students' learning of other subjects such as sciences and mathematics. The 'common factor' is that important competences developed in ICE are 'criticality' and 'intercultural communication', the latter necessitating a co-operative, rather than competitive, attitude to people with other ways of thinking and living. Critical examination of ideas is also vital for the development of reasoning skills that help advance knowledge and understanding in sciences and mathematics. Furthermore, to succeed, this examination must be carried out not in isolation but in collaboration with others, as explained by Osborne in *Science Magazine*:

research has demonstrated that teaching students to reason, argue, and think critically will enhance students' conceptual learning. This will only happen, however, if students are provided structured opportunities to engage in deliberative exploration of ideas, evidence, and argument. (Osborne, 2010, p. 466)

Ensuring high-level learning from these opportunities requires that teachers foster productive disciplinary engagement among students as they work together in their STEM explorations (Engle, 2012).

In addition, there has been a shift in scientific discovery from 'basic' research to 'relevant' science that aligns more resolutely to societal needs and global challenges. This disciplinary shift has resulted in changes for science education where there is now a clear focus on its potential to benefit society with respect to issues of local and global importance. As an example, the new school standards for science in the USA encourage teachers to engage students in inquiry projects that help them learn about the complex interactions between science and society (NGSS Lead States, 2013). The field of mathematics education has also been responsive by highlighting its relevance and attending to societal needs. One important example is the increasingly visible pedagogical movement known as Teaching Mathematics for Social Justice (TMfSJ) characterized as one where:

...learners [are] able to make sense of data in ways that help them see the humanity behind the numbers and to use mathematics as a tool for exposing and analyzing injustices in society and as a means for convincing others of a particular (often nondominant) point of view. (Gutiérrez, 2013, p. 41)

One of the goals of TMfSJ is to enable students to use mathematics to understand issues of power and cultural identity within society (Gutiérrez, 2007) and to increase awareness of social injustices (Gonzalez, 2009) in one's own community and around the world. A further goal is for students to move from being critical observers to critical participants in a socially just society through the use of mathematics (Gutstein, 2006).

Thus, STEM education has been undergoing a transformation toward more supportive and co-operative learning environments and improved pedagogical practices that promote the development of students' knowledge and skills necessary to engage as productive citizens within and beyond the school. Some scholars, such as Wagner, Byram, and Cardetti, have been working with practitioners and students to promote the development of intercultural competence across subjects at the school and college levels (e.g., Cardetti et al. 2019; Wagner et al. 2016; 2019). Their recent book (Wagner et al., 2019) provides details for the planning and creation of interdisciplinary units that foster intercultural competence and intercultural citizenship. Our work builds on this line of interdisciplinary work and extends it by adding an international aspect to the learning experience.

'The Danger of a Single Picture': Project and methodology

The project 'The Danger of a Single Picture' was conducted in the winter semester 2019/20 as a contribution to the 'Cultnet RFCDC project - Principles and Practicalities' initiated by Michael Byram. The Cultnet¹ project had three requirements: implementing (and thus testing) the RFCDC (CoE, 2018), a comparative dimension and interdisciplinarity. Accordingly, learning objectives were defined on the basis of the RFCDC, which comprises four competence areas: knowledge, skills, attitudes and values. Since the project included collaboration between mathematics students from the University of Connecticut (UConn), USA, and students aiming at a qualification as English teachers from the University of Munich (Ludwig-Maximilians-Universität, LMU), Germany, the project allows comparison of the different contexts and bears potential for interdisciplinary learning.

The LMU participants were third to fourth year students in the field of Teaching English as a Foreign Language (TEFL). The UConn participants were graduate students in the Mathematics department with an interest in improving college mathematics instruction. There were six in each group.

We pursued two major educational goals in the project. First was the goal of fostering critical thinking skills. The students were to identify critical issues and human rights violations in their local and global contexts. They were asked to challenge biased and prejudiced assumptions and develop a sense for the importance of multiple perspectives. The second goal aimed at civic-minded action and becoming advocates for democratic values, for example human dignity and human rights, cultural diversity, equality and fairness, as formulated in the RFCDC (CoE, 2018, p. 38).

Methodologically, the project followed the principles of Intercultural Citizenship Education, a pedagogy which includes intercultural collaboration and civic action in four stages (Byram, 2008; Byram, Golubeva & Wagner, 2017). During stage 1 ("Discover about 'us' and prepare for 'them'"), the students familiarized themselves with the project goals and the RFCDC. The focus was placed on values as this domain is a recent addition to previous models of intercultural competence (Byram 1997; Deardorff, 2006) and, with its democratic emphasis, an innovative and rather under-researched field in foreign language education. As part of their self-reflection, the students produced a slide show (using 'Google slides') in which they introduced themselves to their project partners. In stage 2 ("Present 'us' to 'them' and compare"), group building was fostered. The students exchanged their self-introduction slides and used the comment function of 'Google slides' to send responses and engage in dialogue. While synchronous communication may be more striking because of its immediacy, an asynchronous communication mode was chosen here to facilitate exchange across the different schedules and time zones of the project partners.

After this first virtual intercultural encounter, the project entered stage 3 ("Work together in 'us' and 'them' groups"). In this stage, the group of UConn and LMU students had to create a multimodal, digital storybook that includes a collection of incidents that encourage the reader to see things from different angles. The thematic stimulus was provided by a talk entitled *The Danger of a Single Story* (2009) by Chimamanda Ngozi Adichie, which was shown to the students at the beginning of this third phase. Adichie is a Nigerian writer and storyteller who raises awareness of biased perspectives in literature and everyday life in her talk. The students then reflected on local and global issues that can be seen from two or more perspectives. The issues had to be related to the domain of 'values' in the RFCDC. The two student groups then collected and discussed the results of their research on 'Google slides', chose the topics of their narratives and wrote the stories in groups of two to three students. The author groups were created from either UConn or LMU students but at the stage of creating the storybook together they discussed and collaborated

as mixed group, editing the stories, and this was a core component of the project. The students decided to compile all the stories in a digital, multimodal book that not only included the written text but also audio- and video-recordings of the stories. The multimodal approach of the book was chosen in favor of inclusive learning, which we consider an important prerequisite of democratic societies. The idea of creating inclusive material arose from the project group which included a hard of hearing student who gave the project the valuable impetus to examine material with respect to its accessibility to all members of society. The book was then published online to promote democratic values (www.lmu.de/RFCDCproject2020; http://weitblick-action.de/?page_id=1951). By sharing the stories on two highly frequented educational internet pages and by drawing attention to the values presented in the RFCDC, it was not only hoped to encourage the individual reader to question biased perspectives or even actions that harm human rights, but also to take a democratic stance on the web that critics see in danger of becoming increasingly anti-democratic (Goodnature & Persily, 2017). The final stage (“Focus again on ‘us’ and acting in our community”) encompassed a book presentation in the lobby of the university. The students engaged in dialogue with the visitors in order to raise critical awareness of the issues addressed in the book and to advocate democratic values. The money raised during the event was donated to homeless people mentioned in the book.

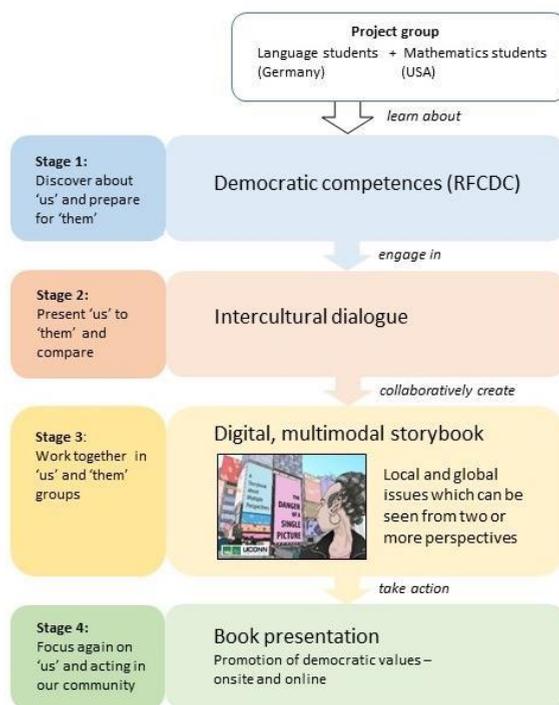


Figure 1. Stages of the ICE project 'The Danger of a Single Picture'

Linking the project to the RFCDC

This collaborative project was part of the learning about intercultural competence that each group was independently engaged in as part of their respective university courses at LMU and UConn.

The RFCDC provided a natural resource for our coordinated exploration of citizenship education in culturally diverse democratic societies. The RFCDC was developed under a rigorous process by a team of experts led by Barrett and published by the Council of Europe (2018). It consists of three volumes each devoted respectively to the presentation of a conceptual model of competences that citizens require for participating effectively in democratic culture and intercultural dialogue; descriptors corresponding to each of the model's competences; and guidance on how to use the model and descriptors for educational purposes. There are two important reasons making it suitable to our participants' interests and profiles: (1) its comprehensive and coherent competence-based approach and (2) its intended audience which includes education practitioners.

The RFCDC framework was woven throughout our learning experience. Prior to engaging in the four stages described in the previous section, a combination of presentations and discussions allowed each group to explore the 20 competences of the conceptual model. In accordance with the project design provided by the instructors, the focus narrowed toward the values domain of the model as the groups started to interact through the stages. The interest was on the one hand to recognize the important role of the values specified for effective and peaceful participation in a culturally diverse democratic society, and on the other hand to appreciate the complexities and hardship generated by its absence. Interactions and conversations on values among students in their UConn and LMU and then in the mixed group deepened students' understanding of this domain and heightened their critical and creative levels, which were further elevated through their interactions and engagement in the story development process.

In addition, the links between the stories and the RFCDC were explicitly revealed by the students. For once their stories were finalized, each team of authors synthesized in a short paragraph the relationship between their story and all the domains in the RFCDC, indicating how and why their story contributes to a better understanding of democratic competences for effective participation in a democratic society and intercultural dialogue. The students discussed, for example, human rights violations against children who grow up in war zones, fairness issues in classrooms where multiple languages are present, or gender inequality in the natural sciences. They also identified the most salient of the domains represented in or suggested by their story. The last page of each story in the multimodal storybook displays the paragraph and highlights the specific domains identified by the student authors. Taken together, the stories produced by the students provide examples of critical issues that address a variety of competences presented in the RFCDC with a strong focus on democratic values, including human dignity and human rights, cultural diversity, justice, fairness, equality, and/or the rule of law. We describe specific examples in the results section of this paper.

Research instruments and data analysis

The project followed the principles of educational action research (Burns, 2010; Caspari, Klippel, Legutke & Schramm, 2016; Cohen, Manion & Morrison, 2011; Elliott, 1985; Sagor, 2011; Stringer, 2007). The authors of this article functioned as instructors of the two university courses held in Germany and the USA and conducted the research. With twelve project participants (six in each course), it is a small-scale study with a focus on qualitative data.

The research project was guided by two questions. Firstly, how can the RFCDC be used to develop an interdisciplinary curricular unit that allows language and mathematics students to expand their democratic competences? Secondly, in the spirit of the "reflective practitioner" (Schön, 1983), what insights does the pilot project yield into the learning potential of such ICE

projects that can serve as a starting point for further investigation, enhanced educational practice and curricular development?

Two types of data were collected: conversational and documentary data. Conversational data comprised a) the student interaction among the mixed groups in the Google Slides and b) student interaction as well as student-teacher interaction within the local groups. The latter included, for example, classroom observation or statements made during an oral exam at the end of the semester. Documentary data also comprised two categories: a) a written reflection by students that was completed after project closure and included adapted elements of the RFCDC portfolio (Byram et al., 2021) and further project-related questions, and b) the project outcome, i.e., the multimodal storybook with six stories and links to the RFCDC created by the students.

Data analysis was carried out on the basis of Mayring's (2010, 2019) qualitative content analysis, a research question oriented and category-based procedure. While this approach of text analysis is qualitative in nature, it does not exclude frequency analyses. Analytical techniques include summarizing, explicating and structuring. All data types except from conversational data type b) were already available in a written form and were at the center of the analysis. Conversational data type b) contributed to complementing and validating the results. Accordingly, a macro analysis of the written data was conducted first to gain an overview of the material and the topics addressed and subsequently categories based on the research focus were established. Since the written reflection (documentary data type a) was elicited using instruments which reflected the two research questions presented earlier in this article, the data allowed project evaluation from instructors' and students' perspectives. Based on the descriptors of the RFCDC, the students evaluated, for example, in which areas of the project they see general potential for democratic learning and, if applicable, in what way the project helped them personally expand their democratic competences.

Results

As part of the learning activity, the students were required to identify local and global issues that can be viewed from two or more perspectives, discuss the topics with their international partners, write stories, link them to RFCDC competences and take civic action by promoting democratic values through their multimodal storybook. All students were able to complete these tasks and their stories, as well as the conversational data, further reveal that they deeply engaged with all three value categories listed in the RFCDC (CoE, 2018, p. 38). For example, the story *The Walk* advocates human dignity and human rights by displaying how biased or rash judgement can lead to discrimination. In the narrative of another story titled *The Danger of a Single Picture*, a multicultural setting is chosen to raise questions about cultural identity. The authors of the story comment that they "wrote this story to demonstrate how we may sometimes develop stereotypical views almost subconsciously. To avoid this, it seems to be crucial for us to regularly question ourselves, our ideas and views." Decentering and challenging taken-for-granted assumptions, the students disclose a high level of criticality (Barnett 1997). Another story *No Choice, Multiple Choice* is staged in a mathematics classroom and centers around fairness and equality. The authors illuminate how common examination formats that focus solely on choosing the correct result and ignore the reasoning process bear risks and explain: "Sometimes the ability to think through multiple choice exams may make one miss the social responsibility for the just and fair treatment of all members irrespective of disability." The authors are alluding to an ongoing concern in mathematics and the sciences that students with certain learning disabilities are unfairly disadvantaged by these types of exams (Ricketts et al., 2010). Furthermore, they see human dignity "[a]ffected when particular abilities and circumstances do not allow some to show their understanding". Given that multiple choice questions are not exclusive to mathematics but

also used extensively in foreign language assessments, the issues raised by the authors of this story are of significant importance for fairness, accessibility, and equality in TEFL education.

The product the students created, i.e., the multimodal storybook including the students' explanatory comments, clearly displays that the activity provided an opportunity for the students to engage with democratic values. The written reflection (documentary data type a) corroborates these findings as the students attribute high learning potential to the project in the value domain, especially in the subcategory "valuing human dignity and human rights". Interestingly, on average the LMU students rated their personal learning higher than the UConn students. Students-teacher conversation revealed that students rated their personal learning as low when they assumed they had entered the project at a high competence level in the respective category. A possible explanation for this effect could be the high academic degree the graduate students already possessed at project start and the self-perception that they had already known some of the content taught.

While the project focus was on democratic values, the students also ascribed high learning potential to other RFCDC elements: "openness to cultural otherness and to other beliefs, world views and practices", "responsibility", "analytical thinking skills" as well as "knowledge and critical understanding of language, communication and the world" (CoE, 2018, p. 38). They highlighted the transnational collaboration and the creative process of writing stories as the most impactful part of the project, and pointed out that "doing your part while working with others, portraying characters and situations with non-negativity" fostered a sense of responsibility "to help others, to discourage negativity" (Math student).

The promising findings fortify the view that the RFCDC is a very suitable tool to design and evaluate teaching activities and that our pilot project helped the students expand their democratic competence. However, it needs to be considered that the sample size of this project was very small, which is why the results of this qualitative study can show the potential of such projects without claiming generalizability. Depending on the constellation of project partners, decisions regarding the frequency and the mode of communication might also have to be reconsidered. Despite the different semester periods of the two universities and the time difference, the students collaborated successfully. Student feedback nonetheless revealed that even more direct contact would have been desirable.

Cross-cultural and cross-curricular dimension

The interdisciplinary and international nature of this educational experience brought forward two core underlying elements: the cross-cultural and the cross-curricular dimensions, each of which uniquely impacted the collaborative learning process beyond a mere collection of individual actions (Barron, 2000). Given that these dimensions influence individuals and groups in different ways and to varying degrees, we do not intend to provide an exhaustive account of their impact but to highlight contributions from each one that caught our attention as the project unfolded.

We recognized that the cross-cultural dimension afforded opportunities for intercultural learning. As students shared their initial ideas for their stories, their interactions through the comment feature on Google Slides brought to light the depth in the ways they reflected on the perceived differences and similarities across their experiences with and understanding of the issues that each story meant to feature. We noticed that some of their interactions did not stop at the awareness level (Fantini, 2000) but were elevated by a comparative approach that enhanced the notion of multiple perspectives on the issues (Barrett et al., 2021). An example of this occurred during the brainstorming of migration and immigration issues related to recent German history – the refugee

crisis in 2015 – and the current situation in Germany. The authors provided a bulleted list of their initial thoughts and left an open question at the end: ‘Situation in 30 years?’. The comparative approach was visible in the students’ interactions through the comments, where they reflected on the significance of the issue not only in Germany but also in the USA, and further discussed current and past developments in their respective countries in response to the open question. The following exchange is an example extracted from the commentary discussion:

Math student: Situation in 30 years? possibly very similar to what happens in the USA - usually by the 2nd or 3rd generation they no longer know their heritage language very well or only know English. Happened to the Germans, the Irish, the Italians...

TEFL student: That's exactly what we were thinking. In fact, it is already happening in Germany as well, for example with children of former guestworkers from eastern Europe. (Google Slides comments exchange)

We also noticed that the cross-curricular dimension further enriched the intercultural learning. Even though the expertise of each group lies in significantly different disciplines, the trajectory of their interactions hinted at the forming of a group identity. This was apparent as they shared their impressions and feedback on each other’s topic selection. For example, one group, which chose to focus on gender disparities in Mathematics at the academic level, received enthusiastic compliments in the comments of the TEFL specialists expressing not only empathy but also connecting the issue to more complex problems. One student wrote, “I hope that many girls and young women will finally be accepted into the sciences and that this stereotypical idea of ‘men’s’ and ‘women’s jobs’ will finally disappear” which expanded the issue to career gender disparities. Another comment read, “I totally agree, this issue should already be addressed at school level” alluding to broader impacts of the chosen topic. The previous commenter also added, “I think that *for us teachers* this should also be a big issue in education for girls” (emphasis added), identifying as a member of the same group. Thus, this aspect of international identification (Byram et al., 2017, p. xxviii) stimulated an expanded awareness of subject-specific issues, consideration of related larger problems and broader impact, and a transition toward considering themselves as members of the same group.

The cross-cultural and cross-curricular dimension also yielded interesting results in terms of fostering the students’ communicative competences. The project was conducted in English, which was a first language for the UConn students and a foreign language for the LMU students. The project provided an authentic situation for the TEFL students to practice English and communicating about the stories enhanced their intercultural competence, as can be concluded from statements in the written reflection:

Although I have family members from different countries, I do now understand better the critical incidents: e.g. I'd never had thought about being discriminating if I call the hair of my Afro-American aunt 'wild'. It also showed me again that you need empathy and communication strategies (plus intercultural competences) to communicate with people from other cultural background and different languages. (TEFL student)

As part of the communicative competences, the project also fostered writing skills since the students created different text types in English. For example, one of the students comments on how the project helped him practice creative writing and editing:

Trying to create a literary text proved to be challenging and required strategies very different from the ones I usually make use of when writing academic papers. For me, this way of writing felt far less structured at first. While this meant that a lot of changes were required during the writing process, it also gave us the chance to experiment with language and explore various ways of expressing the same idea. (TEFL student)

Another type of writing was required during the intercultural dialogue as it pursued a different communicative purpose. Some of the TEFL students point out that this opportunity to practice English in an authentic context was rather unique for them: “It was great to have short written conversations with the UConn students because I personally don’t have a lot of encounters where I have to rely on my English language skills.

While it might seem that only the TEFL students benefited in view of their communicative skills, there was also learning for the math students as they engaged in the story writing process at a level none of them had explored before. Moreover, being the native-speakers (however problematic that term is) in this project, there was a power imbalance with respect to language competence. So, for example, when providing feedback on the LMU students’ stories, the UConn students needed to be sensitive and apply communication strategies that would not hurt their partners’ feelings. Consequently, the project helped them “recognize multiple components of communication in a situation” (Math student), a competence that is of high relevance in and outside of our educational institutions.

Conclusion

The virtual exchange project described above exemplified how democratic competences can be fostered through intercultural and interdisciplinary learning experiences and how the RFCDC serves as a tool to design learning objectives and monitor project success. It yielded positive results as the students successfully engaged in intercultural dialogue, addressed local and global issues and used their creative writing skills to promote democratic values as well as to raise awareness of biased perspectives.

While recent developments in education place a strong focus on competence development (CoE, 2001, 2018, 2020), teaching values is still a contested topic. Critics warn of political indoctrination and that those pedagogies that integrate civic engagement and curricular learning “violate[...] neutrality by promoting a certain form of citizenship, encouraging particular social ideals and coercing students to engage in particular types of social activism” (Rocheleau, 2004, p. 10). Admittedly, ICE and the RFCDC are normative in nature. However, in the sense of Gutmann’s (1987, p. 54) ‘secret curriculum’, even educational agendas that deliberately abstain from communicating value systems to the outside world always convey normative ideas (Sliwka, 2008, p. 37). The question is therefore not whether schools should teach values but rather what values they should teach. With the RFCDC the Council of Europe (2018) provides a very clear answer to this question that is informed by the European Convention on Human Rights and the Universal Declaration of Human Rights.

The social and democratic action inherent in the ICE project described here aims to help students become “active, participative and responsible individuals” (CoE, 2018, p. 7). The intercultural and interdisciplinary approach has particular potential as it allows the development of important real-life skills. Today’s students will shape and lead tomorrow’s world. They will use their language skills to share their convictions with a global audience in the online and offline world, as working language in larger companies or to collaborate in international teams that advance technological progress. It is an interdisciplinary reality that requires stakeholders that possess the necessary knowledge, skills, attitudes, and values to make decisions that will ensure a sustainable and peaceful world. Only if our education system responds to this reality, will our students be prepared for this role.

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¹ *Cultnet: Intercultural Community for Researcher and Educators* is a network of researchers and lecturers who are interested in culture and intercultural education. The network was founded by Michael Byram (<https://cultnetintercultural.wordpress.com>).