Indonesian Teachers' Beliefs about Cooperative Learning

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Date Received: November 24, 2017; Date Revised: February 19, 2018

Abstract – Cooperative Learning has a potential to be implemented in Indonesia since its key principles resonate with the core values of Indonesian culturesgotong royong (mutual assistance) and musyawarah (consensus decision-making). However, previous research revealed that Indonesian strong tradition of teacher-directed instruction hindered teachers to apply constructivist approach such as Cooperative Learning. This study aims to investigate teachers' beliefs about Cooperative Learning in the context of Indonesia, where the values support Cooperative Learning principles but its instructional traditions impede the application of Cooperative Learning. This study was situated in interpretative-qualitative methodology using a case study approach (Stake, 2005). Eighteenteacher interviews, Cooperative Learning training documents, and field notes were employed. Thematic analysis by Braun and Clarke (2006) was used to analyse the interview data. Results indicated that Indonesian teachers' beliefs about Cooperative Learning were influenced by several factors that support and impede teachers to enact their beliefs about Cooperative Learning.

Keywords –*Cooperative Learning, Teachers' Beliefs, Indonesian Cultural Values*

INTRODUCTION

Since first introduced in the early 2000s [1], Cooperative Learning, a teaching approach in which students work together in small, structured, heterogeneous cooperative groups to complete tasks [2], has enthused Indonesian teachers and researchers because of its alignment with Indonesian values. Principles underpinning Cooperative Learning– positive interdependence, individual accountability, promotive interaction, appropriate use of social skills, and group processing [3]–are not new for Indonesians. Indonesian values such as *gotong royong* (mutual assistance) *and musyawarah* (consensus decisionAsia Pacific Journal of Education, Arts and Sciences Vol. 5 No.2, 1-7 April 2018 P-ISSN 2362-8022 E-ISSN 2362-8030 www.apjeas.apjmr.com

making) have been a central part of Indonesian social life [4].

The concept of gotong royong guarantees that each individual of the community shares the equal loads and responsibility to achieve common social goals. This concept is in line with Cooperative Learning principle, positive interdependence and individual accountability. Positive interdependence exists when learners perceive that they are linked with their fellow group members in such a way that they cannot succeed unless their fellow group members do and vice versa. Group members must coordinate their efforts with the efforts of their fellow group members to complete a task [3]. Positive interdependence increases the feelings of responsibility among group members that make them individual accountable [3]. The concept of gotong royong, therefore, is likely to be applied through the Cooperative Learning groups in the classroom.

Musyawarah involves the process of doing everything together in order to reach general agreement or common consent of all community members [5]. This value is reflected in Cooperative Learning principles, promotive interaction and appropriate use of social skills, in which students are motivated to discuss problems to reach a consensus and new understanding. In addition, students are encouraged to learn how to trust and support each other, and resolve conflict constructively [3]. *Musyawarah* also involves all students (high-, medium-, low-achieving participants) into group discussions and activities.

The implementation of Cooperative Learning in Indonesia, however, has also faced challenges. Zakaria [6] reported that although the Jigsaw method, developed by Aronson [7], was more effective in increasing students' Math achievement than the teacher directive approach, 2.5 percent of the respondents did not like to learn in groups. The result showed that students' preferences of learning were influenced by their teachers' way of teaching [8]. A teacher directive approach in which teacher is considered as the centre of the class, has been the major teaching and learning style since the early 5th century in Indonesia when Hindu and Buddhist teachings were introduced [9]. Hindu and Buddhist priests built small settlements called *asrama* (boarding). The *asrama* was inhabited by a *guru* (teacher) or *resi* (religious teacher), his family, and his cantrik (students). The *resi* was the centre of the learning and decided who would be his students [10]. Since then, the hierarchical position of a *guru* and students has influenced the learning and teaching in Indonesian educational institutions [9].

The teachers' position in Indonesia seems to contradict with constructivist perspectives underlying Cooperative Learning, that is, knowledge begins with the students themselves and, within the environment or group [11]. With Cooperative Learning, the teachers' roles are to guide, to facilitate, to observe, and to motivate learning [12]. The differences in teachers' multiple roles, however, may create difficulties in restoring harmony between the teacher-centred beliefs and the notion of Cooperative Learning which expects students to self-construct knowledge with the teacher as a facilitator. It is, therefore, important to study the teachers' beliefs in relation to Cooperative Learning as Cooperative Learning fundamentally changes beliefs of Indonesian teachers. In addition, greater attention is needed to investigate teachers' beliefs about Cooperative Learning in the context of Indonesia, where the cultural values support Cooperative Learning principles but its instructional traditions impede the application of Cooperative Learning.

OBJECTIVES OF THE STUDY

This study aims to explore and interpret Indonesian teachers' beliefs about Cooperative Learning and to what extent Indonesian values–*gotong royong* and *musyawarah*–influence their beliefs about Cooperative Learning.

MATERIALS AND METHOD

The study was situated in interpretative-qualitative methodology using a case study design [13]. A case study design enabled the researcher to gain a deeper understanding of Indonesian secondary school teachers' beliefs about Cooperative Learning and cultural values that influenced their beliefs. Interviews were conducted as the main instrument of the study. The interviews allowed the researcher to meet the teachers in a direct conversation to seek comprehensive, detailed, and contextual information collected (see [14]). The interviews also allowed the researcher to enter into the teachers' perspectives, opinions, and feelings about Cooperative Learning.

The semi-structured interviews approach was employed since the researcher aimed to get rich and indepth answers from the teachers. The questions of the interviews were phrased to elicit open responses such as "Tell me about your teaching experiences", "Tell me about the Cooperative Learning trainings". The questions about Cooperative Learning were adapted from Antil, Jenkins, Wayne, and Vadasy [15] and modified to suit the context of the study. The interviews were conducted mostly in Indonesian language but the researcher occasionally spoke to the teachers in Javanese, their mother tongue, in order to build a bond of friendship prior, during, and after the interviews. Moreover, the use of the teachers' first and second language was to attain the teachers' full understanding of the issue under investigation and to develop a comprehensive interpretation of the phenomena [16]. The 60-minute interviews were recorded. In addition to the interviews, field notes and documents such as Cooperative Learning course materials and curriculum, were used as other sources of data.

Participants

Eighteen teachers from 3 junior secondary schools in Central Java, Indonesia, were invited to participate in the interviews. The number of the interviewees was taken into account as the researcher wanted to explore and reveal more findings [14] about the focus of the study. The teachers' length of teaching career ranged from 12 to 36 years. Two of them had taught for more than 34 years, 8 of them had taught more than 22 to 30 years, and 8 of them had taught more than 12 to 20 years. The teachers taught different kinds of subject namely, Indonesian language, English, Mathematics, Science and Social Science. These teachers were selected to participate in the interviews because they had attended Cooperative Learning trainings or workshops, or other Cooperative Learning professional development and they had applied Cooperative Learning in their classes for at least one year.

Ethical approval for this study was received from the University of Auckland Human Participants Ethics Committee. Ethical issues were acknowledged by the provision of a participant information sheet and by having the participants' right clarified within the consent forms, signed prior to data collection.

Data Analysis

Transcribing

Initial analysis begins when the data is transcribed [17]. The interview recordings of each participant were played and listened to recall what was being reported and to explore interesting things missed during the interviews prior to transcription. The interview data were transcribed verbatim, that is every word spoken by the teachers was documented. To maintain the reliability and the quality from the transcription, the researcher hired a colleague to listen to the recorded interviews and check the transcripts for correspondence between the original oral data and the written transcript.

Translating

Translating the interview data from Indonesian and Javanese language into English (in which the study is reported and written), was necessary as an attempt to maintain the methodological rigour throughout the research process. Methodological rigour was the means by which researchers show integrity and competence in their research to improve the usability of the research findings for the readers [18]. Methodological rigour incorporated [16] notion of trustworthiness and the construct of credibility, transferability, dependability, and confirmability; where methodological rigour was not a simple judge at the end of the research but was attended throughout the research process.

Two translators, speaking both Indonesian and Javanese, were employed to translate segments of interview data. Both translators were Javanese and teachers who understood the cultural and educational issues. The translators' choice was important because a translator might influence the result of the findings [19]. The choice was also considered as the process of translation can be complex and problematic as the concepts cannot always be translated across languages and cultures.

Thematic Analysis

The interview data were analysed using the framework of [20] to support a thematic analysis by [21]. Thematic analysis was employed to identify, analyse, and report themes within data due to the rich nature of data collected from the interviews [21]. NVivo software was used to record initial constructed codes. The initial coding was intended to explore interesting features of the data to represent chunks of interview transcripts [20]. The codes and sub-codes were added as the coding progressed. Thirty-three

constructed codes emerged from 183 interview transcript data from 18-teacher-interviews, which were then collated into 3 overarching themes. Themes were then reviewed for how they related to teachers' beliefs about Cooperative Learning.

RESULTS AND DISCUSSION

Five themes were constructed from the analysis of the interviews. The thematic analysis highlighted Preconceptions of Cooperative Learning, Students' Responses and Attitude, and Group Behaviour, School Contexts, Institutional Challenges, and Indonesian Cultural Values.

Pre-conceptions of Cooperative Learning

Teachers' pre-conceptions of Cooperative Learning were determined by several factors such as teachers' knowledge about Cooperative Learning, teachers' experience of learning Cooperative Learning, and teachers' experience of applying group learning.

Teachers' knowledge of Cooperative Learning influenced their beliefs about Cooperative Learning. Two teachers conducted research on Cooperative Learning for their undergraduate and masters' thesis. Thus, they were likely to have more knowledge than the other teachers. One of them believed that when Cooperative Learning lesson was prepared carefully, students would benefit from Cooperative Learning activities. She elaborated that:

If we [teachers] want to implement Cooperative Learning, we have to be ready with the materials, with the instructions, with the media, so that Cooperative Learning lesson could run smoothly. Thus, when teachers have chosen Cooperative Learning model, they have to prepare everything, so that the students can do Cooperative Learning activities effectively.

Her understanding of the strengths and pitfalls of Cooperative Learning showed that having sufficient knowledge of Cooperative Learning would support her to enact her beliefs.

The teachers' knowledge about Cooperative Learning was mostly gained from colleagues' sharing, trainings, and workshops, except the 2 teachers who studied Cooperative Learning from universities in addition to trainings or workshops. When asked about the principles of Cooperative Learning, no teachers referred to Johnson and Johnson's [3] 5 essential elements-positive interdependence, individual accountability and personal responsibility, promotive interaction, appropriate use of social skills, and group processing–or Kagan and Kagan's [22] 4 principles– positive interdependence, individual accountability, equal participation, and simultaneous interaction. Most teachers responded that the key principle of Cooperative Learning was cooperation. From the analysis of the documents, I found that one of training centres, in which teachers mostly joined, discussed two principles – positive interdependence and individual accountability.

When asked about the Cooperative Learning structures or techniques, most teachers were unable to name them because they forgot the names of the structures. "What is it? [talking to herself] ... I forgot the techniques". Or they were confused in mentioning the name, "Eem... it is a kind of quiz, is that TGT [Teams-Games-Tournament]?" TGT was developed by David DeVries and Keith Edward at the John Hopkins University [23]. However, almost half of the teachers knew Jigsaw and had used it in their classes. A few teachers knew STAD (Student Teams-Achievement Divisions), developed by Slavin [23].

Teachers' experience of learning Cooperative Learning also determined teachers' beliefs about Cooperative Learning. Teachers reported that they got many opportunities to learn about Cooperative Learning such as from colleagues, subject teacher meetings, trainings and workshops run by education department (local and national), local universities, and by USAID (United States Agency for International Development). The experience of learning from colleagues had shaped teacher's teaching as a teacher described:

There was this fellow teacher making a case on the stage, then at that moment I got the picture of how I could make my students like Physics, as they said that Physics was not a fun subject to learn. But after I saw this particular fellow teacher making his presentation, I took the good stuff and applied it to my class. It turned out that there were many approaches we could use, and I put some of them into practice. It was the group approach.

Most teachers responded that Cooperative Learning trainings and workshops made their teaching more creative and fun. The trainings and workshops were beneficial for their teaching and students. A teacher described that: There were lots of benefits of cooperative learning. There were lots of new things. Even though we have known it [Cooperative Learning] for a long time, there were so many new things we got from USAID trainings, for example in evaluation, and how to arrange the seat when we taught as such.

Teachers' experience in applying group learning increased the beliefs about Cooperative Learning. Teachers claimed that before they joined Cooperative Learning trainings, they had already used group learning. "I thought I have used Cooperative Learning since long time ago, I call it joyful learning, learning is fun". Another teacher explained, "In my opinion, Cooperative Learning has been practised for quite some time but I did not know the name". Such construct of group learning had made Cooperative Learning as potential pedagogy.

Students' Responses and Attitude, and Group Behaviour

All participants responded that Cooperative Learning increased students' level of activity and participation in the lesson. "What I like about it [Cooperative Learning] is that students are active. When we [only] explained they would be just quiet, listened to us, but with Cooperative Learning they were active in their own learning". "The students were active, I only gave instructions and they could work by themselves". Teachers also reported that Cooperative Learning made students more independent and confident, and motivated. "This Cooperative Learning approach can instil confidence, it is as if, they are better motivated". A teacher added that:

This method is good, for this allows students to be independent and learn how to be confident. When we gave students worksheet, they learned how to be responsible to work on the problems, but if we used other instructional models, the students will, you see, only follow their peers.

Cohen et al. [24] stated that Cooperative Learning is different from other traditional group work because it requires conceptual thinking rather that remembering factual information. Teachers need to prepare appropriate instructions to the task and prepare the students for cooperative group work [24].

Although most teachers reported that only a few students in a class were inactive during Cooperative

Learning groups, they faced some problems with group behaviour. One of them said, "Not all members are high achievers, there is likely one person who does not contribute". Another teacher explained:

Almost all students are active, only few [students] are passive. His/her friends usually told me that he/she did not want to participate. They said "Ma'am, he did not want to help". Then, I usually approach him/her".

In responding to the passive students, generally the teachers approached the troubled students individually, recommending them to participate more in cooperative group work.

School Contexts

The theme school contexts describe the school physical environment, class layout and size of the class. Among the 3 schools, 1 school was under construction. Teachers in this school had indicated that the time for Cooperative Learning had been disturbed. A teacher commented, "Here [the school], there has been a construction work, a few minutes were deducted from each teaching hour, if we do not do this, school will not be over until 7 pm." It should be noted, for example, that during the field work, the researcher observed some construction work was still in progress. Although the rooms were ready to use, some of the ceilings of the classrooms had not been installed, the floor tiles on the hall ways were not yet installed. The rooms were dusty and dirty.

The average size of the classes was around 60 m^2 for 32 to 36 students with 16 to 18 rectangle-shaped wooden tables for two students and wooden chairs. The tables were arranged in rows facing the white board. The layout of the classroom made the teachers take even longer to group the students. A teacher said,

We [teachers] oftentimes need extra time to arrange the place [classroom] because the room is not suitable [for group work], the classroom is too narrow so it takes time to arrange the tables, it takes time to arrange the chairs, and other things.

Another teacher had similar comment, she said, "The problem here [her school] is the classrooms. The setting of the classroom is like that [rows], so I think I have to rearrange it every time".

Institutional Challenges

Teachers faced several institutional challenges in applying Cooperative Learning. Time pressures had been reported as the biggest challenge for teachers to implement Cooperative Learning. They reported that Cooperative Learning activities were time-consuming, to add pressure to their teaching. Teachers also complained that preparing a Cooperative Learning lesson took longer time. For example, one teacher said, "This way, for that group discussion model for instance, it is not only practice [doing discussion] like that, we [teachers] still have to prepare the worksheet, and then the grading model, sometimes we are reluctant to do so".

Exam pressures was another issue that the teachers had to cope with. The huge pressure and high-stake nature of the national exit examination had provided the teachers with less motivation to apply Cooperative Learning. A teacher expressed her concern, "Concerning time, the second semester usually, eem..., there are only question and answer sessions, quick ones, as there are several National Exams, up to four National Exams, you know, practice tests and the likes". The other teacher had anticipated to deal with the national exam. She said, "I reduce the time for discussion in order to keep up with the materials for this second semester, we will have to deal with the National Exams".

The last but not necessary the least factor that influenced teachers' beliefs was the support from the local education department. A teacher who was also a vice principal elaborated the issue this way:

It seems like support from the local education department is lacking. It seems like they [officials at the local education department] just let it roll. There was no evaluation whatsoever. The program was like, running on its own. Teachers from state school, when they had to attend trainings, had to still work on dispositions from the department, from head of the department. Once, we had to join a training, we still had to cancel out the other assignments [including teaching].

His opinion was likely to be influenced by his position as a vice principal who was dealing with the dispositions and human resources in his school.

Indonesian Cultural Values

All teachers agreed that Indonesian cultural values, gotong royong and musyawarah, were in line with Cooperative Learning principles. A teacher said, "It [Cooperative Learning] is learning to cooperate, find [information] together, to create an atmosphere of gotong royong, and to respect each other".

In a classroom context, a teacher described that the practice of gotong royong was reflected through Cooperative Learning activities.

When students were given assignment for instance, they would talk about it together. They complemented each other, they would work together and display their results or presented them together, they would get the same score, and that made them happier than working individually.

The majority of the teachers reported that the practice of Cooperative Learning also promoted *musyawarah* in which the group members worked together to discuss the task to reach general agreement and to create a caring, cooperative community to increase achievement and to achieve goals assigned by the teacher. A Math teacher described an example of making consensus in his class:

Students in group tried to reach a consensus in making the definition of a prism. Some said that a prism was a structure with flat base with rectangles on its sides. Some defined it as a structure with a base and a top of congruent and parallel polygon. Results from these two definitions were agreed in a consensus saying that a prism was a structure with a base and a top made of congruent and parallel polygon with the sides made of rectangles.

He also described that Cooperative Learning not only made the students discuss and solve Math problems but also enable the students to figure out the proper Math equation for each case through all the processes of critical thinking in the groups.

Gotong royong reflected the Cooperative Learning principle, positive interdependence, when students were positively independent toward each other in the group [3]. The students were personally responsible of their jobs which made them individually accountable. Promotive interaction and use of social skills were practised during *musyawarah* to solve problems in carrying out the tasks. The teachers were pleased that the application of Cooperative Learning promoted students' behaviour. A teacher said:

[Cooperative groups] build new characters in which students are not selfish and are responsible when coming up with ideas. They don't have to be too obstinate, but they have to provide solid foundation instead, whilst accommodating the opinion of others.

In addition, another teacher believed that her students not only achieved the academics goals but also improved their social skills.

CONCLUSION AND IMPLICATION

The study has shown that there have been positive forces for the teachers to apply Cooperative Learning such as sufficient knowledge of Cooperative Learning, ongoing professional development of Cooperative Learning, positive students' responses and attitudes. School contexts and institutional factors, however, have potentials to impede teachers enact their beliefs about Cooperative Learning. The Indonesian cultural values, *gotong royong* and *musyawarah*, have influenced the teachers' beliefs about Cooperative Learning significantly to the extent that the values were reflected, practiced, and valued by the students when they were doing cooperative group activities.

The study leads to some implications. First, the study offers teachers to; 1) Increase their understanding of their beliefs about Cooperative Learning; 2) Identify factors that hinder the implementation of their beliefs and take actions to prevent them from happening; 3) Engage in continued professional development which eventually improves their teaching performance. Second, the findings of the study provide school and education leaders information about the factors that support teacher in enacting their beliefs. Thus, the leaders could create cultures which are supportive for teachers to implement Cooperative Learning.

LIMITATION

The present study has a number of limitations. First, it focuses merely on the espoused beliefs of teachers about Cooperative Learning. It did not show whether the teachers practised their beliefs. Second, the results of the study were derived solely from interviews, classroom observations are needed to find out the actual practice. Third, the results show that teachers' beliefs were influenced by the people who work directly with them. This study, however, did not investigate parties influencing teachers' beliefs such as students, colleagues, school leaders, and/or policy makers.

ACKNOWLEDGEMENT

The author gratefully acknowledges The Directorate General of Higher Education, The Indonesian Ministry of Research and Technology and Higher Education for the scholarship that support her research as a part of the author's PhD study at The University of Auckland, New Zealand. The author would like also to thank her supervisors for their ongoing technical assistance in her work.

REFERENCES

- [1] Noel, B. R., Shoemake, A. T., & Hale, C. L. (2006). Conflict resolution in a non-Western context: Conversations with Indonesian scholars and practitioners. *Conflict Resolution Quarterly*, 23(4), 427–446.
- [2] Dyson, B. (2002). The implementation of cooperative learning in an elementary physical education program. *Journal of Teaching in Physical Education*, 22(1), 69– 85. doi:10.1080/00336297.2004.10491823
- [3] Johnson, D. W., & Johnson, R. T. (2009). An Educational Psychology Success Story: Social Interdependence Theory and Cooperative Learning. *Educational Researcher*, 38(5), 365–379. doi:10.3102/0013189X09339057
- [4] Bowen, J. R. (1986). On the political construction of tradition: Gotong royong in Indonesia. *The Journal of Asian Studies*, 45(03), 545–561.doi:10.2307/2056530
- [5] Darmaputera, E. (1988). Pancasila and the search for identity and modernity in Indonesian society: a cultural and ethical analysis. New York: EJBrill. 90-04-08422-3, pp. 30-42.
- [6] Zakaria, E., Solfitri, T., Daud, Y., & Abidin, Z. Z. (2013). Effect of cooperative learning on secondary school students' mathematics achievement. *Creative Education*, 4(02), 98.
- [7] Aronson, E. (2002). Building empathy, compassion, and achievement in the jigsaw classroom. In J. Aronson (Ed.), *Improving academic achievement. Impact of psychological factors on education* (pp. 209–225). San Diego, CA: Academic Press.
- [8] Gow, L., & Kember, D. (1993). Conceptions of teaching and their relationship to student learning. *British Journal of Educational Psychology*, 63(1), 20– 23. doi:10.1111/j.2044-8279.1993.tb01039.x
- [9] Bjork, C. (2013). Teacher training, school norms and teacher effectiveness in Indonesia. In D. Suryadarma & G. W. Jones (Eds.), *Education in Indonesia* (pp. 53– 67). Singapore: Institute of Southeast Asian Studies.

- [10] Koentjaraningrat. (1978). Twentieth-century ruralurban changes. In H. Soebadio & C. A. du Marchie Sarvaas (Eds.), *Dynamics of Indonesian history* (pp. 345–376). New York: North-Holland Pub.Co.
- [11] Vygotsky, L. (1978). Mind in society : the development of higher psychological processes. Cambridge: Harvard University Press 1978. 0-674-57628-4, pp. 129-131.
- [12] Cohen, E. G. (1994). Restructuring the classroom: Conditions for productive small groups. *Review of Educational Research*, 64(1), 1– 35.doi:10.3102/00346543064001001
- [13] Stake, R. E. (2005). Qualitative case studies. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (3rd ed., pp. 443–466). London: SAGE.
- [14] Charmaz, K. (2014). Constructing grounded theory (2nd ed.). London: Sage. 978-0-85702-9133, pp. 105-108.
- [15] Antil, L. R., Jenkins, J. R., Wayne, S. K., & Vadasy, P. F. (1998). Cooperative learning: Prevalence, conceptualizations, and the relation between research and practice. *American Educational Research Journal*, 35(3), 419–454.doi:10.3102/00028312035003419
- [16] Denzin, N. K., & Lincoln, Y. S. (2005). Introduction : the discipline and practice of qualitative research. In *The SAGE handbook of qualitative research* (pp. 1–43). CA: SAGE, Thousand Oaks.
- [17] Creswell, J. W. (2012). Educational research: planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Boston: Pearson.978-0-13-261394-1, pp. 236–239.
- [18] Tobin, G. A., & Begley, C. M. (2004). Methodological rigour within a qualitative framework. *Journal of Advanced Nursing*, 48(4), 388–396. doi:10.1111/j.1365-2648.2004.03207.x
- [19] Larkin, P. J., Dierckx de Casterlé, B., & Schotsmans, P. (2007). Multilingual translation issues in qualitative research: Reflections on a metaphorical process. *Qualitative Health Research*, 17(4), 468–476.
- [20] Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook*. London: SAGE. 978-1-4522-5787-7, pp. 69–104.
- [21] Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative Research in Psychology, 3(2), 77–101.
- [22] Kagan, S., & Kagan, M. (2009). *Cooperative Learning*. San Clemente: Kagan Publishing. 978-1-879097-10-0, pp. 5.9–5.11
- [23] Slavin, R. E. (1980). Cooperative Learning. *Review of Educational Research*, 50(2), 315–342. doi:10.3102/00346543050002315
- [24] Cohen, E. G., & Lotan, R. A. (2014). Designing Groupwork: Strategies for the Heterogeneous Classroom (3rd ed.). Teachers College Press.978-0-8077-5566-2, pp. 6–17.