

# Collaborative learning in a culturally diverse senior secondary vocational education

***Citation for published version (APA):***

Tielman, K. A., Brok, den, P. J., Bolhuis, S. M., & Sande, van de, R. A. W. (2010). Collaborative learning in a culturally diverse senior secondary vocational education. In E. Elbers (Ed.), *Moving through cultures of learning. Meeting of the Earli special interest groups (SIG10 and SIG2010) 2+3 sept. 2010 Utrecht* (pp. 69-70). EARLI.

***Document status and date:***

Published: 01/01/2010

***Document Version:***

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

***Please check the document version of this publication:***

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

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# Collaborative learning in a culturally diverse secondary vocational education.

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This contribution discusses a descriptive study on the experiences of students and teachers in secondary vocational education regarding collaborative learning (CL) in a culturally diverse context. The study bridges two domains of research: research on culturally diverse learning environments - which has mostly concerned primary and general secondary education (e.g. de Haan (2005), Hajer (1996), Radstake (2007) and studies on CL. The present study adds to the existing literature not only by integrating these two domains, but also by its specific focus on Dutch secondary vocational education and by focusing on multiple sources of evidence (both cognitions and actions; both student and teacher perspectives).

The study analyzes current practices and perceptions of teachers and students with CL in a culturally diverse, competence-based learning environment. The sample consisted of 27 students (with 12 different cultural backgrounds) and two of their teachers (a mentor and a coach/tutor). Teachers and students were followed while working on a project-based series of lessons.

Data collection consisted of two steps. In the first step, small groups of students and their teachers were observed and videotaped (allowing for simultaneous analysis of both verbal and non-verbal behaviors) during collaborative learning tasks. Based on these observations, semi-structured interviews were conducted with 9 groups of 3 students and the two teachers, focusing on topics of collaboration, communication, participation, coaching and conflicts, all of which derived from CL characteristics mentioned by Johnson & Johnson (1994).

In the second step, video-stimulated (recall) interviews were conducted with both teachers. The interviews were based on a-priori defined moments selected by the teachers themselves and/or the researcher. The data was qualitatively analyzed in an interactive process between theory and data using the computer program Atlas-Ti. Codes were partially based on CL characteristics from the literature (Johnson & Johnson, 1994) and partially on focal points emerging from the observations/interviews. To establish reliability of the coding process, parts of the data were coded by a second researcher, leading to an inter-rater reliability (Cohen's kappa) of 0.87, and a percentage of agreement between both researchers of 81.5 on 54 valid fragments. The findings suggest three major themes behind the data: 1) individual accountability of the students; 2) the importance of the teacher/coach role; and 3) the aspect of (absence of) cultural consciousness.

The results of the study suggest that on the one hand students are mostly focused on their individual performance and that there is poor collaboration among classmates while working on collaborative learning tasks, while on the other hand teachers seem unaware of their own role in affecting students' behavior and the influence of cultural backgrounds of students in the CL process.

Despite the limitations of this study (a small number of participants, one single school and only one sector of secondary vocational education), the results of the study suggests that teachers of culturally diverse classrooms of the secondary vocational education must become more aware of their own roles as adaptive coaches and models and of the influence of multiculturalism on CL. The full paper discusses the results and suggestions in detail.

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