Summary

The research presented in this thesis is an exploration of the relationship between students’ motivation, represented by students’ personal goals and the quality of cooperative learning (henceforth CL) processes of first and second year students enrolled in secondary vocational schools. Special attention has been paid to contextual factors and their influence on the quality of CL, and to differences between students that are related to their ethnocultural background. Cooperative learning refers to all those learning methods, where students work on assignments cooperatively in situations that allow or stimulate cooperation.

Four questions were central to this thesis, namely. 1) What is the relationship between students’ goal preferences, contextual factors in the classroom and the quality of CL? 2) How can effective CL teams be distinguished from ineffective ones, and what distinguishes them in terms of the students’ goal preferences and perceptions of contextual factors in the classroom? 3) Which teacher related conditions coincide with effective CL processes and which conditions are related to failing CL processes, in the course of a year? 4) Can we distinguish between separate profiles of person variables (Dutch language proficiency and goal preferences) and context variables (social resources and school belonging) that account for variations in the quality of CL and does ethnic background play a role in explaining differences in these profiles and the quality of CL?

The Netherlands has 42 regional educational centers for secondary vocational education. They all received a letter in which we explained the purpose and relevance of the study and invited them to participate. Eleven schools evenly spread over the Netherlands participated. The study had a longitudinal design with three data-waves. Data were gathered at three data points, between December 2001 and May 2003. During the first data-wave students were halfway in their first year. The second data-wave took place halfway in their second year, and the third data-wave at the end of the second year. During our study we had to deal with a large decline of participating students; during the first data-wave 1920 completed our questionnaires, at data wave two 897 and at data wave three only 639 students. Senior vocational school delivers educational programs for four broad competency levels. The first competency level is the lowest level and level four is the highest. Students enrolled at all four levels participated. Students in secondary vocational schools can choose for different program types. We distinguished engineering and ICT, retail and administration, food and tourism, and health and welfare programs.
Students’ perceptions on the quality of their CL processes were measured in this study as well as contextual factors (the extent that they were taught knowledge, skills and rules for CL, teacher monitoring, intervention and evaluation behavior), students attitudes towards CL and their Dutch and general language proficiency. Furthermore, students completed questionnaires on their goal preferences and the social climate in school.

With respect to the relationship between students’ goal preferences and the quality of CL we concluded that social support goals had the strongest relationship with the quality of CL, followed by mastery and belongingness goals. Regarding the relationship between contextual factors and the quality of CL we can conclude that students’ perceptions on the extent that they were taught skills, knowledge and rules for CL and teachers monitoring the learning process, were related to the quality of CL. Also, the availability of peer and teacher support were related to the quality of CL. The quality of CL was best predicted by a combination of students’ social support goals, their evaluations of the extent that they were taught cooperation skills, teachers’ monitoring behavior and the availability of academic and emotional peer support. An interesting finding was that students’ goal preferences only added a little to the explanation of the quality of CL. Context appraisals were much more important in explaining the quality of CL. Furthermore, we were able to confirm previous findings suggesting that female students had higher scores on the quality of CL. They also valued social support and mastery goals more than male students who often had higher scores on superiority goals.

An important question in the study was how to distinguish between effective CL teams and ineffective teams. The in-depth study with a stimulated-recall method showed that a remarkable difference between these groups was related to students’ belongingness and social support goals. Students in ineffective CL teams preferred belongingness goals over their social support goals, whereas the reversed pattern was found in effective CL teams. Important to note is that only one relationship was found between students goal preferences and their engagement levels, which was precisely between students’ belongingness goals and task related engagement. This was a negative relationship in the ineffective CL teams. Also we found that mastery and social responsibility goals – together with ‘learning for a certificate’ goal - tended to be more prevalent in effective teams, while learning for a certificate and entertainment goals were dominant in ineffective teams. The most substantial dissimilarity in goal preferences pertained to the strong prevalence of entertainment goals in ineffective CL
teams. A last interesting difference between the CL teams was that students in ineffective teams seemed less conscious of their goal preferences than students in effective teams. Both groups pointed at the context far more often to explain their CL, than to their goal preferences. Task characteristics, group composition, and teacher behavior were often mentioned as reasons for effective or ineffective CL.

Results of the longitudinal study showed that the extent that students were taught skills and knowledge for CL and teachers’ clarity on rules for CL was highly related to the quality of CL, during all three waves. Effective cooperators had higher scores on all scales at all three data-waves (teacher’ monitoring, intervention and evaluation behavior, rules and skills for CL), in particular as regards the extent that they were taught skills and knowledge for CL. Wave 2 showed the highest scores on the quality of CL and the scores on all teacher related conditions were highest at that same time. Furthermore, we signaled a tendency that the weak cooperators perceived a major decrease in teachers’ monitoring and intervention behavior after the second data-wave. In contrast, the effective cooperators perceived almost no change in teachers’ monitoring and intervention behavior.

Four student profiles were identified; a school-disaffected, a weak communication/school bonding, a school-adjusted and a frustrated profile. Students that were grouped in the school-adjusted profile showed the highest scores on CL. This profile was characterized by clear goal preferences for social and mastery goals, low scores on superiority goals, high perceived availability of social support and high scores on school and peer identification. Students in the school-disaffected profile had the lowest scores on CL. This profile was characterized by no clear goal preferences, a lack of social resources and peer/school identification. Students from different backgrounds were disproportionally distributed. The weak communication profile was characteristic of Caribbean students, their scores on Dutch language proficiency were extremely low. Students with this profile scored relatively high (and positive) on school alienation. Superiority was the most valued goal domain in this profile. The frustrated profile was characterized by clear goals, but dissatisfaction with the availability of academic and emotional support, especially from teachers. Furthermore, they were slightly negative on identification with peers and school and were considering changing schools. Somewhat disturbingly, the highest proportion of all students fell in this cluster. Interestingly, the school-adjusted profile was characteristic of the Dutch students.
Concluding, students’ goal preferences contribute just weakly to the explanation of the quality of CL, whereas students’ perceptions on contextual factors were important predictors. Social support and mastery goals were most vital in predicting the quality of CL. Especially the extent that students were taught the appropriate knowledge, skills and rules for CL was found to be a crucial -and lasting- precondition of successful CL. Also the social climate in the classroom was important for effective CL. Moreover, gender, program type, and ethnocultural background had no direct effect on the quality of CL.

In our view these results are promising. Whereas students’ goal preferences are difficult to change and gender and ethnocultural background are stable characteristics, changes in the classroom context are much easier to bring about. Cooperative learning can be a means to motivate students and prevent drop-out to a certain extent, when teachers pay more attention to stimulating students’ reflections on their goal preferences, stimulating students’ social and mastery goals, stimulating students to reflect on the link between their personal goals and school goals. Furthermore this research underlined the importance of teaching students the appropriate skills and knowledge and rules for CL explicitly and paying attention to stimulating language proficiency. The teacher should better monitor the CL process and intervene when necessary. Finally, the teacher should create a social climate where students are invited to provide and receive support.