education sciences

MDPI

Article

# Does Level of Education Influence the Development of Adolescents' Mindsets?

**Jaap Glerum [1,2], Angela Dimeska [2], Sofie M. M. Loyens [2] and Remy M. J. P. Rikers [2,*]**

[1] School for Secondary Vocational Education and Training 1, Scalda, 102 4530 AC Terneuzen, The Netherlands; jaglerum@scalda.nl

[2] Roosevelt Center for Excellence in Education, University College Roosevelt, Utrecht University, Heidelberglaan 8, 3584 CS Utrecht, The Netherlands; a.dimeska@ucr.nl (A.D.); s.loyens@ucr.nl (S.M.M.L.)

* Correspondence: r.rikers@ucr.nl

Received: 13 July 2020; Accepted: 29 November 2020; Published: 7 December 2020


**Abstract:** In the present study, we compared the mindset of preuniversity students and (primary and secondary) vocational students. Participants comprised of 173 students attending preuniversity education and 101 students attending vocational education. All participants completed a mindset questionnaire. We expected, based on previous educational experiences, that preuniversity students would show on average a higher score (i.e., more of a growth mindset) than vocational students. Results indicated, however, that there was hardly any difference in mindset between vocational and preuniversity students. The mindset of adolescents is therefore not influenced by the level of education.

**Keywords:** vocational education; secondary education; mindset; incremental theories of intelligence; adolescents

## 1. Introduction

Mindset is a person's belief about human attributes, such as intelligence. People with a growth mindset (that is, an incremental theory of intelligence) believe that their intelligence is malleable and can be developed. People with a fixed mindset (that is, an entity theory of intelligence) believe that their intelligence is innate and unalterable [1,2]. Students with a growth mindset adopt learning goals and have a mastery-oriented response to setbacks. Students with a fixed mindset adopt performance goals and often have a helpless response towards setbacks [3]. A student's mindset affects how that student will face new and challenging tasks, and hence, influences students' academic performance [2,4,5]. A student's mindset develops from prior experiences with people in the environment, such as parents and siblings or peers and teachers at school [2,6,7]. Some studies have shown differences between sixth- and eighth-graders, where eighth-graders were better able to explain the difference between a fixed and a growth mindset than sixth-graders [8]. Mindset can also be changed using targeted interventions, based on the effect of different kinds of praise. In general, praise for effort primes a growth mindset, whereas praise for intelligence primes a fixed mindset [9,10]. However, in adolescence, there is the risk of an opposite effect for mindset interventions; adolescents can interpret adults' effort praise as an indicator of their low ability because they can think that they need to work harder because they are not making enough progress [11].

Many studies have focused on a growth mindset and its effectiveness in different educational settings [12,13], and several studies have shown the importance for adolescents of adopting a growth mindset [14–16]. Although previous research in other fields has shown an impact of educational stage [17], there has not been much emphasis on the effect of ability grouping and different school types in secondary education on the development of mindset among adolescents. A previous study [18]

explored the mindset of students in secondary vocational education and training (VET); the VET students' mean mindset did not substantially differ from the mean mindset of students in prior research. However, the majority of VET students did not have a growth mindset or fixed mindset, but could best be classified as having a mixed mindset, and mindset and academic achievement seemed to be unrelated in VET. The general aim of this study was to gain insight into the effect of ability grouping and different school types in secondary education on the development of mindset among adolescents. This insight can contribute to the applicability of mindset theory in VET.

For this study, we chose to compare the adolescents' mindsets in different educational tracks in secondary school in the Netherlands. Figure 1 offers an overview of the Dutch educational system. In the segregated Dutch educational system, at the age of twelve, right after primary education, entering secondary education, adolescents must go on to the vocational track or the secondary education track based on their level of academic performance. The better-performing adolescents can enter the secondary education tracks, divided into senior secondary education (preparing for higher vocational education) and preuniversity secondary education (preparing for university, VWO, "Voorbereidend Wetenschappelijk Onderwijs") [19]; Luijkx and De Heus, 2008). The lower-performing adolescents join the primary vocational track (4 years), because their academic achievement does not meet the requirements (i.e., a sufficient result on a final test in primary education) for admission to the general education track. After primary vocational education, most students continue their education in secondary vocational education and training (VET). In this study, we compared adolescents' mindsets in primary vocational education (mostly lower-performing students) with adolescents' mindsets in preuniversity education, VWO (mostly high-performing students), because these students' level of education differs the most from each other (the level of senior general education lies just in between them).

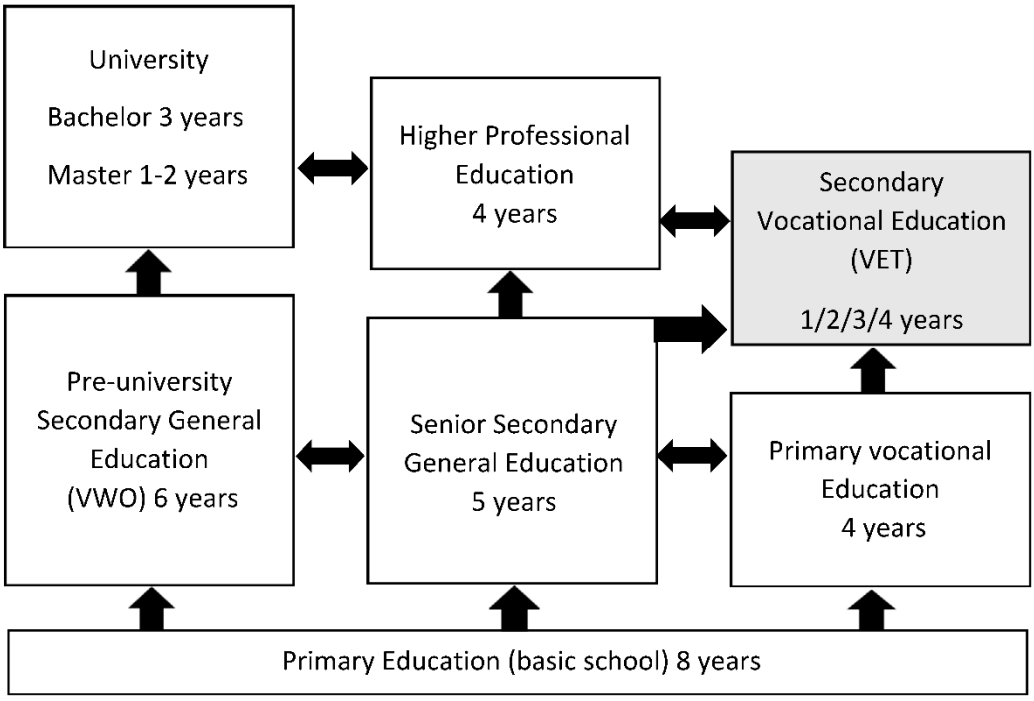


**Figure 1.** The Dutch educational system.

The ability grouping in the segregated Dutch educational system can prime students who are entering secondary education towards a fixed mindset, especially for students in the primary vocational track [20]. It is to be expected that vocational students might have experienced more difficulties during their primary school career, which can lead to a fixed mindset [21,22]. Therefore, we hypothesize that more students in vocational education will have a fixed mindset. On the other hand, we expect that students from the preuniversity level will have had more success experiences during their primary school career, which can lead to a growth mindset [21,22]. In addition, most of the preuniversity students have followed a more advanced and intellectually more demanding trajectory in primary education, which is also associated with a growth mindset [4].

We expect these differences right after elementary school (in the year of secondary education), but also in the fifth year of secondary education (for the vocational track students, actually the first year of secondary vocational education). We also investigated the development of students' mindsets during their vocational and preuniversity training. We expect the vocational students to develop more of a growth mindset during their training, because they are now attending an educational level that is more attuned to their capabilities [23,24]. Their level will also be more in line with the level of their classmates, which will reduce comparisons between high-achieving and low-achieving students in the classrooms, and thereby put less emphasis on a fixed mindset [2]. For the preuniversity students, we also expect them to develop more of a growth mindset. They will have shown persistence and managed to (nearly) complete the preuniversity level with difficult courses [23]. Students who do not meet the academic requirements cannot continue in the preuniversity level, and they will move to another level. Those lower-performing students who leave will likely have a fixed mindset [15,21]. Because of this, the number of students with a fixed mindset will decrease, and the remaining group of students will show more of a growth mindset overall. In vocational education, students cannot leave, because it is the lowest level of compulsory education, so the proportion of students with a fixed mindset will not decrease.

Therefore, by comparing the mindset of students in vocational education with their peers in preuniversity education, we compare the two extremes to gain more insight into the development of adolescents' mindsets. Because the existing literature is inconclusive regarding the relation between mindset and age [11–13], we are curious if there will be a relation between mindset and age for our participants.

Although a recent meta-analysis [13] showed a possible effect of mindset interventions for students with a low socioeconomic status (SES), we did not include SES as a variable, because there are hardly any students with a low SES in the Netherlands.

## 2. Materials and Methods

### 2.1. Participants

Participants were 274 students (Age 12–19 years, Mage = 14.21 years, SDage = 2.29, 97 males). There were 173 participants from vocational education and 101 from preuniversity education (see Table 1 for descriptive statistics). The school principals at random selected the participating classes; none of the students in these classes were excluded from participation. All students were participating for the first time in mindset research. All participants attended educational institutes in the southwest of the Netherlands. In total, we had four different groups of participants: beginning and advanced students from either vocational or preuniversity education. All participants gave informed consent; for minors, their parents also gave informed consent.

**Table 1.** Descriptive statistics and mindset.

| | | | | | Age | Mindset | Mindset in Category | | |
|---|---|---|---|---|---|---|---|---|---|
| | | **n** | **Male** | **Female** | **M (SD)** | **M (SD)** | **Fixed** | **Mixed** | **Growth** |
| Students | | 274 | 97 | 177 | 14.20 (2.29) | 3.66 (0.78) | 16.1 | 45.6 | 38.3 |
| Vocational | begin | 108 | 53 | 55 | 12.61 (0.70) | 3.68 (0.72) | 13.9 | 50.0 | 36.1 |
| | end | 65 | 1 | 64 | 17.02 (1.12) | 3.70 (0.61) | 6.2 | 55.4 | 38.5 |
| | total | 173 | 54 | 119 | 14.26 (2.32) | 3.69 (0.68) | 11.0 | 52.0 | 37.0 |
| Preuniversity | begin | 49 | 23 | 26 | 11.90 (0.47) | 3.92 (0.85) | 10.2 | 38.8 | 51.0 |
| | end | 52 | 20 | 32 | 16.21 (0.72) | 3.29 (0.91) | 38.5 | 30.8 | 30.8 |
| | total | 101 | 43 | 58 | 14.12 (2.25) | 3.60 (0.93) | 24.8 | 34.7 | 40.6 |

Note. begin = first and second year of secondary education; end = fifth year of secondary education.

### *2.2. Materials and Procedure*

Both the materials and procedure regarding measuring students' mindsets were based on previous research on Dutch VET students [17].

#### 2.2.1. Implicit Theories of Intelligence

We used Dweck's Implicit Theories of Intelligence scale for children (aged 10 and older) [1] to measure students' mindsets. We used the forward–backward method [25] to translate the original 6-item English questionnaire into Dutch. The questionnaire includes items rated on a 6-point Likert-type scale from 1 (Strongly Disagree) to 6 (Strongly Agree). The scale consists of three entity theory statements (e.g., "You have a certain amount of intelligence, and you really can't do much to change it"), and three incremental theory statements (e.g., "You can always greatly change how intelligent you are") [1]. The entity theory items are reverse scored, and a mean score is calculated for the six items, with a low score (1) representing agreement with an entity theory, and a high score (6) agreement with an incremental theory. Participants with a score of 3.0 or below are typified as having a fixed mindset and participants with a score of 4.0 or above a growth mindset. Using this criterion, researchers have reported that, on average, about 15% of the participants score between 3.0 and 4.0 and are characterized as having a mixed mindset, and the others are roughly evenly distributed between a fixed mindset and a growth mindset [26]. Several studies have reported reliability and validity of the English scales. The internal reliability varied between 0.78 [4] and 0.94–0.98 [26]. The Cronbach's alpha of the Dutch scale in this study was 0.74.

#### 2.2.2. Procedure

We first contacted the school principals or head of departments of several educational institutes in the southwest of the Netherlands by e-mail. Four educational institutes responded almost immediately, whereupon we made an appointment to provide more detailed information about the study. We scheduled the data collection process and we informed parents and students by letter about the research and asked for consent. We informed both parents and students that they could opt out at any moment. The data collection took place during regularly scheduled classes and took no more than 15 min per class. All students were briefed about the purpose of the research, received a hard copy of the questionnaire and were introduced with the structure of the questionnaire. The students were encouraged to complete the questionnaire individually. Students were informed that the test was completely anonymous; they were also told that their teacher would not see their individual answers.

#### 2.2.3. Design and Analysis

We had two independent variables that might influence the dependent variable of mindset. First was the educational level: vocational and preuniversity education. Second was the year of study, beginning or end. We used independent samples *t*-tests for our first hypothesis. With a $2 \times 2$ factorial analysis of variance (ANOVA), we tested the differences in mindset between both educational levels at the beginning and the end. We calculated the relation between age and mindset with

Pearson's correlation. A recent meta-analysis [13] showed that neither age, nor gender differences have a significant effect on mindset; therefore, we have not included these as independent variables. Because we had a rather wide age range in our sample, we controlled the effect of age with an analysis of covariance (ANCOVA).

## 3. Results

The students who were at the beginning of their vocational education were in the first or second year of study. To check whether they can be grouped together, we conducted an independent samples *t*-test. The results demonstrated that the difference in mindset between the first-year students (M = 3.74, SD = 0.75) and the second-year students (M = 3.58, SD = 0.63) was not significant, $t$ (106) = 1.08, $p$ = 0.282, d = 0.23. Therefore, we merged the first and second year into one group, representing students who are at the beginning of vocational education. Then, we calculated the mean mindset of all our students (Mmindset = 3.66, SD = 0.78), splitting up the students into three levels of mindset; 16.1% had a fixed mindset, 45.6% a growth mindset and 38.3% a fixed mindset. Thereafter, we calculated the mindset of the different groups; these results can be found in Table 1.

Next, we calculated the difference in students' mindsets between all students in the vocational level (M = 3.69, SD = 0.68) and all students in the preuniversity level (M = 3.60, SD = 0.93). We found no significant difference, $t$ (162.07) = 0.916, $p$ = 0.321, d = 0.11. The difference in students' mean mindset at the beginning of the vocational level (M = 3.68, SD = 0.72) and the beginning of the preuniversity level (M = 3.92, SD = 0.85) was not significant $t$ (155) = −1.820, $p$ = 0.071, d = 0.30. Students' mean mindset at the end of the vocational level (M = 3.70, SD = 0.61) was significantly higher, $t$ (85.37) = 2.862, $p$ = 0.005, d = 0.53, compared to students' mindset at the end of the preuniversity level (M = 3.29, SD = 0.91).

We conducted a two-way analysis of variance to check on the development of mindsets comparing students at the beginning and end of the preuniversity track and students at the beginning and end of VET. The results demonstrated that there was no main effect of educational level on students' mindsets, F (1, 270) = 0.89, $p$ = 0.346, ηp2 = 0.03. However, there was a statistically significant main effect of year of study, F (1, 270) = 10.07, $p$ = 0.001, ηp2 = 0.36. The interaction between educational level and year of study was also statistically significant, F (1, 270) = 11.72, $p$ = 0.001, ηp2 = 0.42.

We controlled for the effect of age on students' mindsets with an analysis of covariance and found no statistically significant effect, F (1, 270) = 0.105, $p$ = 0.746. Finally, Pearson's correlation showed that mindset and age were weak and negatively correlated, r = −0.137, $p$ = 0.023, that is, older students tended to have lower mindset scores.

## 4. Discussion

The present study investigated differences between the mindsets of students from the vocational and preuniversity levels of secondary education. We expected vocational students to have on average a more fixed mindset compared with those from the preuniversity level, who would have a more growth mindset, and we expected to see these differences right after elementary school. We were also interested in the development of students' mindsets as they neared completion of both the vocational and preuniversity levels. Because the level of education is more in line with their abilities, we expected students in the vocational level and in the preuniversity level both to develop more of a growth mindset. However, due to the differences likely to be present right after elementary school, we expect that vocational students will still have a more fixed mindset overall compared to preuniversity students, who will have more of a growth mindset overall.

Our results are not in line with our hypotheses. That is, there was no significant difference between the mindsets of the students at a vocational level and a preuniversity level. There was also no significant difference between students' mindsets at the beginning of their trajectory. At the end of their trajectory, there was a significant difference, such that vocational students' mindsets did not alter, preuniversity students' mindsets decreased.

All of the groups that were investigated in this research had on average a mixed mindset with a range between 3 and 4 (see Table 1). The distribution of different types of mindsets was about the same as in a previous study conducted in secondary vocational education [18] and deviates from the distribution as described in prior research [26]. We found more students with a mixed mindset and fewer students with a fixed mindset, except for the end of the preuniversity level. There we found more students with a fixed mindset. The small number of students with a fixed mindset is in line with the OECD (Organisation for Economic Cooperation and Development, Paris, France) report [27], which typified the Dutch school system as a system with a low proportion of poor performers, which is more supportive of a growth mindset. The same report identified the lack of motivation among Dutch students, which is more in line with having students with a fixed mindset. A possible explanation might be that these two effects cancel each other out, which leads to more Dutch students with a mixed mindset and fewer students with a fixed mindset. Further research is necessary to confirm this hypothesis. Our second-last analysis confirmed that there was no difference between vocational and preuniversity students; we did not find a significant effect of educational level on mindset.

We did find, however, a statistically significant effect of the year of study on mindset, $F(1, 270) = 10.07$, $p = 0.001$, $\eta p2 = 0.36$. For vocational students, the effect is in line with our hypothesis that the level of education was more in line with their capabilities and they were more similar to their classmates in ability, both factors that can prime a growth mindset [2,23]. The preuniversity students may have received more praise for intelligence (e.g., "You are good, you have earned good grades"), or may have experienced more setbacks, because they are in a difficult level, both factors that can prime a fixed mindset [2,23]. They also may have seen classmates failing to meet the requirements and dropping out to attend a lower educational level, which could also be confirmation of their ability, and which is related with a fixed mindset [2]. Although the effect of year of study on mindset is significant, it must be taken into account that the differences in mindset between the beginning and the end are small, and all different groups of participants, on average, stay in the range of mixed mindset.

When we take all participants together, we have lower academically achieving adolescents (i.e., vocational education students) and higher academically achieving adolescents (i.e., preuniversity students) in one group. We focused on the effect of the year of study on mindset, but year of study is also related to age. Students at the beginning of their studies were about 12 years old and students at the end were almost four to five years older, and we found a weak negative correlation between age and mindset. The difference in age was similar for both groups, but vocational students' mean mindset did not alter, while preuniversity student's mean mindset decreased. Therefore, it seems plausible that age did not influence students' mindsets, especially because we found a significant effect of year of study on mindset and an interaction between the educational level and the year of study. Prior research also does not give clear insight into the relation between age and mindset [7,8,11].

For future research, we recommend expanding the research to younger children in primary education and to a larger number of adolescents from more schools across the country. In combination with a longitudinal approach, this can give a more complete overview of the development of mindsets at the different levels of education. Using more powerful analysis techniques, such as structural equation modelling, can also lead to a better view of causal relations between the different variables [28].

Many mindset studies have also focused on the relation between mindset and academic achievement. In most studies, students' overall GPA or their performance on standardized mathematics tests is taken as a measure of academic achievement [4,16]. We also asked participants for their latest average grade in mathematics as representative of academic achievement. The differences in reporting academic achievement between vocational education and preuniversity education turned out to be great, since their programs are on a different level. Therefore, we excluded this information from our results. For future research, we suggest including a standardized test to measure academic achievement.

## 5. Conclusions

In this study, we did not find differences in mindsets between vocational and preuniversity students. Previous studies have typically shown that about 15% of students have a mixed mindset [25]. In this study, as in our previous study [18], we found about 45% students with a mixed mindset and fewer students with a fixed mindset. Because the small effect of educational level on mindset was the only difference we found, we conclude that educational level and adolescents' mindsets are hardly correlated with each other. These findings give more insight on the effect of ability grouping and different school types in secondary education on the development of mindset among adolescents.

The major limitation of this study is that we have used different students for different ages. Therefore, we cannot say anything about the development of mindset in the same student. For future research, we recommend a longitudinal design to gain insight into the development of the mindset of the individual student during the school career.

**Author Contributions:** Conceptualization, J.G. and R.M.J.P.R.; methodology, J.G. and R.M.J.P.R.; data-collection J.G. and A.D., formal analysis, J.G. and A.D.; writing—original draft preparation. J.G.; writing—review and editing, R.M.J.P.R. an S.M.M.L.; supervision, R.M.J.P.R. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no conflict of interest.

## References

1. Dweck, C.S. *Self-Theories: Their Role in Motivation, Personality, and Development*; Psychology Press: Oxford, UK, 2000.
2. Dweck, C.S. *Mindset: The New Psychology of Success*; Random House Publishing Group: New York, NY, USA, 2006.
3. Dweck, C.S.; Leggett, E.L. A social-cognitive approach to motivation and personality. *Psychol. Rev.* **1988**, *95*, 256–273. [CrossRef]
4. Blackwell, L.S.; Trzesniewski, K.H.; Dweck, C.S. Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Dev.* **2007**, *78*, 246–263. [CrossRef] [PubMed]
5. Paunesku, D.; Walton, G.M.; Romero, C.; Smith, E.N.; Yeager, D.S.; Dweck, C.S. Mind-set interventions are a scalable treatment for academic underachievement. *Psychol. Sci.* **2015**, *26*, 784–793. [CrossRef] [PubMed]
6. Gunderson, E.A.; Sorhagen, N.S.; Gripshover, S.J.; Dweck, C.S.; Goldin-Meadow, S.; Levine, S.C. Parent praise to toddlers predicts fourth grade academic achievement via children's incremental mindsets. *Dev. Psychol.* **2018**, *54*, 397–409. [CrossRef] [PubMed]
7. Pomerantz, E.M.; Kempner, S.G. Mothers' daily person and process praise: Implications for children's theory of intelligence and motivation. *Dev. Psychol.* **2013**, *49*, 2040–2046. [CrossRef] [PubMed]
8. Diseth, Å.; Meland, E.; Breidablik, H.J. Self-beliefs among students: Grade level and gender differences in self-esteem, self-efficacy and implicit theories of intelligence. *Learn. Individ. Differ.* **2014**, *35*, 1–8. [CrossRef]
9. Xing, S.; Gao, X.; Jiang, Y.; Archer, M.; Liu, X. Effects of Ability and Effort Praise on Children's Failure Attribution, Self-Handicapping, and Performance. *Front Psychol.* **2018**, *9*, 1883. [CrossRef] [PubMed]
10. Mueller, C.M.; Dweck, C.S. Praise for intelligence can undermine children's motivation and performance. *J. Personal. Soc. Psychol.* **1998**, *75*, 33–52. [CrossRef]
11. Amemiya, J.; Wang, M.-T. Why effort praise can backfire in adolescence. *Child Dev. Perspect.* **2018**, *12*, 199–203. [CrossRef]
12. Burnette, J.L.; O'Boyle, E.H.; VanEpps, E.M.; Pollack, J.M.; Finkel, E.J. Mind-sets matter: A meta-analytic review of implicit theories and self-regulation. *Psychol. Bull.* **2012**, *139*, 655–701. [CrossRef]
13. Sisk, V.F.; Burgoyne, A.P.; Sun, J.; Butler, J.L.; Macnamara, B.N. To what extent and under which circumstances are growth mind-sets important to academic achievement? Two meta-analyses. *Psychol. Sci.* **2018**, *29*, 549–571. [CrossRef] [PubMed]

14. Ahmavaara, A.; Houston, D.M. The effects of selective schooling and self-concept on adolescents' academic aspiration: An examination of Dweck's self-theory. *Br. J. Educ. Psychol.* **2007**, *77*, 613–632. [CrossRef] [PubMed]
15. Good, C.; Aronson, J.; Inzlicht, M. Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *J. Appl. Dev. Psychol.* **2003**, *24*, 645–662. [CrossRef]
16. Yeager, D.S.; Dahl, R.E.; Dweck, C.S. Why Interventions to influence adolescent behavior often fail but could succeed. *Perspect. Psychol. Sci.* **2018**, *13*, 101–122. [CrossRef] [PubMed]
17. Pozo, S.; López, J.; Moreno, A.J.; López, J.A. Impact of Educational Stage in the Application of Flipped Learning: A Contrasting Analysis with Traditional Teaching. *Sustainability* **2019**, *11*, 5968. [CrossRef]
18. Glerum, J.; Loyens, S.M.M.; Rikers, R.M.J.P. Mind your mindset. An empirical study of mindset in secondary vocational education and training. *Educ. Stud.* **2019**. [CrossRef]
19. Luijkx, R.; De Heus, M. The educational system of the Netherlands. In *The International Standard Classification of Education (ISCED-97). An Evaluation of Content and Criterion Validity for 15 European Countries*; Schneider, S.L., Ed.; Mannheimer Zentrum für Europäische Sozialforschung: Mannheim, Germany, 2008; pp. 47–75.
20. Boaler, J.O. Ability and Mathematics: The Mindset Revolution that Is Reshaping Education. In *Forum*; Volume 55. Available online: www.wwwords.co.uk/FORUM (accessed on 1 October 2019).
21. Aronson, J.; Fried, C.; Good, C. Reducing the effects of stereotype threat on African American college students by shaping theories of intelligence. *J. Exp. Soc. Psychol.* **2002**, *38*, 113–125. [CrossRef]
22. Good, C.; Rattan, A.; Dweck, C.S. Why do women opt out? Sense of belonging and women's representation in mathematics. *J. Personal. Soc. Psychol.* **2012**, *102*, 700–717. [CrossRef]
23. Haimovitz, K.; Dweck, C.S. The origins of children's growth and fixed mindsets: New research and a new proposal. *Child Dev.* **2017**, *88*, 1849–1859. [CrossRef]
24. Kamins, M.L.; Dweck, C.S. Person versus process praise and criticism: Implications for contingent self-worth and coping. *Dev. Psychol.* **1999**, *35*, 835–847. [CrossRef]
25. Epstein, J.; Santo, R.M.; Guillemin, F. A review of guidelines for cross-cultural adaptation of questionnaires could not bring out a consensus. *J. Clin. Epidemiol.* **2015**, *68*, 435–441. [CrossRef] [PubMed]
26. Dweck, C.S.; Chiu, C.; Hong, Y. Implicit theories and their role in judgments and reactions: A world from two perspectives. *Psychol. Inq.* **1995**, *6*, 267–285. [CrossRef]
27. Organisation for Economic Cooperation and Development. *Netherlands 2016: Foundations for the Future*; OECD Publishing: Paris, France, 2016. [CrossRef]
28. Kline, R.B. *Principles and Practice of Structural Equation Modeling*; Guilford: New York, NY, USA, 2015.