Lost in translation : congruency of teacher and student perceptions of assessment as a predictor of intrinsic motivation in ethnodiverse classrooms

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Teacher-Student perceptions of assessment practices as predictors of student motivation to learn[3]

Abstract

Assessment in classrooms is a highly promotional tool for learning but often feared for its summative nature. The aim of this study was to test the hypothesis that differences between students and teachers in the perception of monitoring and scaffolding activities would predict students' intrinsic motivation as mediated by the students' basic needs of Competence, Autonomy and Relatedness. It was expected that students who are more proficient in the language of instruction would be more congruent with their teachers, and that teachers who are more efficacious in their teaching would be less congruent with their students. A total of 1466 students and 89 teachers from junior vocational high schools participated in this survey-study. Multilevel structural equation modelling revealed that differences between teachers' and students' classroom perceptions of AfL were smaller with efficacious teachers, and positively predicted intrinsic motivation which was partly mediated through basic motivational need fulfilment.

4.1 Introduction

Fostering student motivation through assessment and instruction is generally considered important to achieve positive learning outcomes (see Harlen & Crick, 2003, for a review). Student motivation positively predicts learning achievements (Boekaerts & Corno, 2005; Linnenbrink & Pintrich, 2002) and has been found to correlate with student competency beliefs (Ames & Archer, 1988), perceived school well-being (Kasser & Ryan, 2001), and student dropout (Legault, Green-Demers, & Pelletier, 2006). Given the body of research on fostering student motivation, it is surprising that the impact of learning scaffolding tools such as assessment for learning on student motivation has not yet been studied extensively by educational researchers.

[3]This chapter is submitted for publication as: Pat-El, R. J., Tillema, H. H., Segers, M.S.R. & Vedder, P. H. (Under Review). Teacher-student perceptions of assessment practices as predictors of student motivation to learn.

Teacher and student perceptions of Assessment for Learning

The repertoire of formative, learning enhancing assessment methods has increased the past decades into a diversified field of alternative assessment tools, such as teacher-initiated- , self- and peer assessments using a variety of assessment techniques such as closed questions, essays, portfolios and performance assessment in authentic learning situations. Assessment for Learning (AfL), as an approach, stresses the importance of continuous monitoring and repeated provision of informative feedback and classroom dialogue to promote student learning (James & Pedder, 2006). Various authors (P. Black & Wiliam, 1998b) have advocated that using assessment as an instructional approach will promote (deep) learning processes by utilizing its possibilities for monitoring to track student progress and scaffolding to show or help students recognize what areas need improvement (Pat-El, Tillema, et al., 2011; Stiggins, 2005). Advocates of the AfL approach point to the need for integrating assessment within learning and thereby putting emphasis on formative assessment as supportive to the learning process (McMillan, 2007). If AfL is to integrate assessment with learning, it has to be a process of continual interaction between teachers and individual learners in which feedback provision and its acceptance and utilization are key elements (P. Black & Wiliam, 2009; Davis, 2006; Struyven et al., 2005). In this respect, it is of great importance that students' and teachers' perceptions on the nature and content of the assessment provided are congruent. In order for teacher assessment to feed in to student learning, the teacher may have to adapt word choice and complexity of the information entailed in the feedback to the student's capacities to understand the feedback. This means that the teacher seeks to enrich the students' learning without disturbing student's mood and attentional focus for learning (P. H. Vedder, 1985). Obviously, this cannot be a one-sided, teacher regulated process. The student needs to disclose how she learns, what the contents are that she is working with, and how she understands task or assignments that are supposed to guide the learning process. Also, it is important that the student anticipates teacher instructions and feedback as personal expectations. Student expectations of the teacher's contribution prepare the student for more or less optimal 'absorption' or inclusion of the teacher provided information into the flow of learning. The less congruent teachers and students are in what each of these parties has to know about the information needed to optimize instruction and learning, the less effective instruction and learning will be. Congruency in teacher and student assessment and learning related perceptions are important for the success of classroom interventional activities (Loughran, 2010). Students who perceive teachers as having failed to provide support show less interest and enjoyment in school (Skinner & Belmont, 1993). Research shows that assessment practices can easily distract students from learning (Doyle, 1977), particularly when assessment practices affect students' feelings of safety in their setting of learning (Covington, 2000; Entwistle & Tait, 1990). Misaligned perceptions of the learning environment lead to misunderstanding and possible misinterpretations of the assessment information; its meaning and purpose (Norman, 1986; Bartholomew et al., 2001), and students can perceive the learning criteria to be more implicit and 'hidden' than their teachers (Könings, 2007).

Recent research on teacher or student perceptions of their learning environment, shows that there is a clear misalignment between teachers and students

on the focus and direction of (in)formative feedback support (Hattie, 2008; MacLellan, 2001; McMillan, 2007; Pat-El, Tillema, Segers, & Vedder, 2010). The fact that research showed that teacher-reported teaching behavior can strongly differ from actual behavior (Reeve, Bolt, & Cai, 1999) suggests that it may be complicated to correct or compensate for misalignments.

Predicting perception congruencies

Creating a learning environment that is facilitative to students' learning and motivation requires considerable teaching effort. This teacher effort depends on experiences of teacher efficacy or teacher's sense of being effective, a good teacher (Allinder, 1994). Teacher efficacy might therefore prove to be an important predictor of congruence of student and teacher appreciations of AfL components.

Indeed it may be an important predictor, but at the same time teacher efficacy is a potential fallacy. Teachers who are confident in their ability to teach might focus more on classroom feedback that supports their efficacious beliefs, and subsequently may overestimate their own perceptions of AfL. For example, Gerges (2001) showed that teacher efficacy may block flexibility and variation in employing instructional strategies, such as explorative classroom questioning. High efficacious teachers seem to show more rigid use of teaching strategies and content coverage (Wheatly, 2002). Self-efficacious beliefs themselves can fuel a confirmation bias for mastery experiences, in turn boosting one's own self-efficacious beliefs (Mynatt, Doherty, & Tweney, 1977). Through this process of self-verification (Swann Jr. et al., 2007) teachers high on teacher efficacy beliefs would focus more on particular classroom signals that boost their efficacy beliefs, and focus less on information that is contrary to those and risk missing out on cues signaling them to adapt their teaching. In line with the theory of self-verification we expect teachers with high teacher efficacy beliefs for successfully implementing instructional strategies (Tschannen-Morann & Hoy, 1998) to perceive more AfL practiced in their classroom than their students do. From a students' perspective, assessment practices in classrooms ideally build on the students' ability to grasp meaning and purpose of the information provided by the AfL strategies of monitoring (i.e., appreciation of strength and weaknesses) and scaffolding (action on learning routes) (Sadler, 2010).

In order to appreciate and understand assessment information and feedback given, student language proficiency is an important characteristic in classroom instruction (Wertsch, 1997). Formative feedback needs to be understood and recognized as support for it to be effective (Bartholomew et al., 2001). Feedback might not be recognized or understood and then it might not be experienced or valued as teacher support. Any nuances between plainly criticizing and feedback can become blurred when teachers and students misunderstand each other's communication possibly resulting in incongruent teacher-student perceptions of AfL.

The impact of assessment on motivation

Self Determination Theory is used in this study to explain motivational states as outcomes of differences between student and teacher perceptions of classroom assessment interventions. SDT proposes that students have to satiate

innate universal 'needs' to feel motivated for an educational activity (Deci & Ryan, 1985; Ryan & Deci, 2000). Intrinsic motivation is the tendency to engage in activities for the inherent joy an activity brings, and has been positively linked with persistence, mastery learning goals, deep learning, and well being (Ryan & Deci, 2000). Motivational needs consist, according to SDT, of a feeling of being autonomous, a sense of relatedness with others in the activity, and experiencing the competence to complete a given activity. These three needs are characterized by Jang (2008) as basic needs. This scholar presents some evidence that the basic needs in part explain the effectiveness of AfL in fostering student motivation. Scaffolding activities as provided in Assessment for Learning, especially giving direction and clarification of learning goals may successfully fulfil all three basic needs (Jang, 2008). Studies that have focused on certain motivational needs in the SDT, in the context of monitoring activities, have found that feedback is positively associated with intrinsic student motivation (A. E. Black & Deci, 2000). The provision of feedback and the support of student autonomy has also been related to students' increased feelings of competence and autonomy (Levesque, Zuehlke, Stanek, & Ryan, 2004), indirectly and positively affecting intrinsic student motivation (Jang, Reeve, Ryan, & Kim, 2009).

There is some evidence that teacher-student misalignments have an impact on motivational mediators. For example, instances where a high degree of agreement between teachers and students was found, students also reported a different, closer relationship with their teachers, and their role was more categorized as a 'teacher' than as a 'judge' (Sambell & McDowell, 1998). Students and teachers have also been found to disagree on the degree of autonomy support provided, or the importance attached to it (Assor et al., 2002), which negatively affected students' perceived personal preference for schoolwork. Feedback meant to foster student ability and feelings of competence have also been found to have the opposite effect when low ability students perceive the feedback as a teacher's doubt about their competence (P. Black & Wiliam, 1998a). Apparently assessment information can be 'lost in translation' in which teachers and students ultimately differently perceive the learning environment, which negatively impacts student motivation.

Because few studies using the SDT model of motivation incorporate all three basic needs it remains unclear in what way the effect of classroom assessment on intrinsic motivation is mediated by the basic needs. The aim of this study is to use the SDT model of intrinsic motivation and to investigate how congruency in the perception of scaffolding and monitoring predict intrinsic motivation, and whether that effect is mediated by basic need fulfillment.

The current study

The present study aims to test the congruency in the perception between teachers and students of the nature of the formative assessment provided to learners and whether the level of conguency positively corresponds with students' intrinsic motivation. Using self-determination theory of motivation as a conceptual background, it will be tested whether fulfillment of the basic needs of competence, autonomy and relatedness will explain the nature of the relationship between congruency in perception of AfL and intrinsic motivation. Teacher

efficacy and student language proficiency will be used as predictors of student-teacher congruent perceptions of the learning environment.[1]

4.2 Method

Sample

Students and teachers in junior vocational high schools in the Netherlands took part in this study. The individual students and their teachers were the unit of analysis. Questionnaires in this study were administered in eighteen schools to 1658 students (N_{girls} = 751, N_{boys} = 861; missing = 86) and 89 teachers. The participating teachers represented a broad domain of subjects, ranging from arts to sciences. The average class size was 17.6 students (SD = 4.88; min = 11; max = 27). Median students' age was 14 years old (min = 11; max = 19); girls (M = 13.7, SD= 1.10) were slightly younger than boys (M = 14.1, SD = 1.13), $t(643)$ = -4.17, $p < .001$. Teachers (43 females, 46 males) were on average 41.4 years old (SD = 11.97) and had been active for 14.7 years (SD = 11.81) and at their current school for 7.9 years (SD = 11.81). Female teachers (M = 39.4, SD = 10.80) and male teachers (M = 43.3, SD = 12.80) were about the same age, ($t(85)$ = -1.55, p = .126), but male teachers had more years of teaching experience (M_{female} = 11.9; M_{male} = 17.3; $t(85.6)$ = -2.23, p = .028) and more years of experience at their current school (M_{female} = 5.6; M_{male} = 10.2; $t(72.8)$ = -2.53, p = .014). Two teachers were removed from the analysis because their classes did not complete any questionnaires.

Measures

Questionnaires were used to measure AfL perceptions in teachers and students in conjunction with teachers' efficacy for teaching, students' language proficiency, students' three basic needs for motivation, and their intrinsic motivation. All Likert items response values ranged from 1 (strongly disagree) to 5 (strongly agree), unless otherwise specified.

Intrinsic motivation.

Intrinsic motivation was measured with the interest/enjoyment scale from the Intrinsic Motivation Inventory (IMI) (McAuley, Duncan, & Tammen, 1989). The scale was translated to Dutch and adapted to measure interest and enjoyment in the class they were being taught at that moment. The scale consisted of 7 Likert scale items. Sample items are: "I would describe this class as very interesting" and "I think this is a boring class" (reversed). In the current study, Cronbach's α of the 7-item scale was .91.

Perceived competence.

The 4-item Perceived Competence Scale (Deci, Schwartz, Sheinman, & Ryan, 1981) was translated to Dutch. A sample item is: "I am capable of learning

[1] Although teacher gender was a significant predictor of congruency in Chapter 3, due to lack of a clear explanatory theory this variable was not further tested. Non-significant predictors in Chapter 3, that were retained in the model to prevent overfitting, were not included in this and subsequent chapters

the material in this class". In the current study, Cronbach's α of the 4-item scale was .86.

Relatedness.

Relatedness was measured with the 8-item Relatedness scale from the IMI (Deci et al., 1981) and was translated to Dutch and adapted to measure the class they were being taught at that moment. A sample item is: "I feel like I can really trust my teacher". In the current study, Cronbach's α of the 4-item scale was .85.

Perceived autonomy.

The 3-item Perceived Autonomy Scale (Martens & Kirschner, 2004) was in Dutch. A sample item is: "I can determine for myself how I work during this class". In the current study, Cronbach's α of the 3-item scale was .67.

Independent variables

Perception of AfL.

Perceptions of AfL practices were measured with the Assessment for Learning Questionnaires which consists of both a teacher and a student version (Pat-El, Tillema, et al., 2011). The questionnaire is comprised of two subscales: Monitoring and Scaffolding. All items were scored on 5-point Likert scale items. Differences (i.e., alignment) were computed by subtracting the teacher scores, from the TAFL-Q, from the student scores, from the SAFL-Q. Negative difference scores therefore indicate higher teacher scores, while positive difference scores indicate higher student scores. Items in both the TAFL-Q and the SAFL-Q are worded similarly to enable strict comparisons between the two populations.The Monitoring subscale consisted of 12 items (Cronbach's α = .91). The scale was defined as how often and in what form feedback is used and how self-monitoring is facilitated. Sample items are "I encourage my students to reflect upon how they can improve their assignments", and "I discuss with my students how to utilize their strengths to improve on their assignment".

The Scaffolding subscale consisted of 16 items (Cronbach's α = .87). The scale was defined as communication of clear learning goals and criteria, and how those goals and criteria can be met. Sample items are "I ensure that my students know what they can learn from their assignments", and "I adjust my instruction whenever I notice that my students do not understand a topic".

Teacher efficacy for instructional strategies.

Teachers rated their efficacy for teaching on the Ohio State Teacher Efficacy Scale (OSTES) (Tschannen-Morann & Hoy, 1998). The 4-item Efficacy for instructional strategies was translated into Dutch. A sample item is, "To what extent can you provide an alternative explanation or example when students are confused" Cronbach's αs in the present study was .77.

Dutch language proficiency.

Student language proficiency was measured with a self-report scale from the ICSEY study (Berry et al., 2006). Self-reports to determine language proficiency have a high correlation with evaluations of a person's language proficiency by others (Kirchmeyer, 1993). In the four-item scale students were asked to evaluate how well they were able to read, write, speak and understand the Dutch language. Scores ranged from 1 (not at all) to 5 (very well). Cronbach's α in the present study was .82.

Procedure

Schools were randomly selected across the Netherlands by email and telephone. Of the 31 schools that were approached, 7 agreed to participate in this study. Teachers and their students participated by informed consent. Filling out the questionnaires took teachers and students about 25 minutes. Respondents were assured that their contribution was anonymous. Students received a small reward when they returned their fully completed questionnaire.

Analysis

Complex mediations are traditionally tested in structural equation modelling, but are generally inappropriate if the data is hierarchical in nature. The advantages of multilevel regression and structural equation modelling can be combined in a multilevel structural equation model (MSEM) (Muthén, 1994). In contrast to other methods of testing for multilevel mediation, MSEM does not require all outcomes to be measured at level-1, and can test effects of level-2 variables by modelling their effects on the level-2 part of level-1 variables; all in one analysis. The traditional ML-estimator is inappropriate due to unequal classroom sizes. The Muthèn's maximum-likelyhood-based estimator (MUML) is better suited to handle unbalanced data (Muthén, 1994).

The hypothesized model in this study was an 2-(1,1)-(1,1,1)-1 Upper-level mediation model, where the predictor Teacher Efficacy, was a level-2 measure, and all other variables were measured at level-1 . The model was tested following a procedure outline by Preacher, Zhang and Zyphur (2011). Their method is designed to build a MSEM by first determining the need to go multilevel, by calculating Intra-Class-Correlations (ICC's) of all variables. Generally, in large samples ($N > 100$), ICC's as low as .01 have been found to strongly inflate type I error rates (Barcikowski, 1981). The second step in the MSEM analysis is testing the fit of a model based on the within-variance of the data, which identifies covariance on the individual level. The model build based on the within-covariance matrix is then used in Step 3, where a model based on the between-variance is added. The model on the between level shows how level-2 variables interact with the other aggregated variables at level-2. In effect, two models are built and joined: a model at the individual student level, and a model at the classroom level.

To date there is no research available that has determined the appropriate sample size for mediation analysis in a MSEM framework. It has been suggested that 40 level-2 units are appropriate to detect large structural paths at the

between level, whereas N > 100 has been suggested to detect small effects (Meuleman & Billiet, 2009).

MSEM was performed on the first data set in EQS version 6.1. To interpret a model's fit, the following indicators were used: RMSEA and SRMR below 0.05 and CFI scores above 0.95 indicate good fit (Browne & Cudeck, 1992) and RMSEA and SRMR below .08 and CFI scores above .90 indicate acceptable fit (Hu & Bentler, 1999).

4.3 Results

Prior to analysis, the research variables were examined for accuracy of data entry, missing values, and fit between their distributions. No variables had missing values over 5%, and there was no pattern to the missing data (MCAR's $\chi^2(79) = 94.98$, $p = .106$). Missing values were replaced by EM-estimates (Musil, Warner, Yobas, & Jones, 2002) based on all other research variables in the dataset. No continuous variables deviated from the normal distribution, and no univariate extreme cases (> 3*IQR) were found. 19 cases were identified through Mahalanobis distance as multivariate outliers ($p < .001$). Even though no specific pattern could be discerned, the cases were removed, leaving 1447 cases for analysis.

Table 4.1: Means, standard deviations, scale reliabilities and intraclass correlations of the background and research variables.

	N	**Mean**	**SD**	α	**ICC**
Teacher Efficacy	87	4.26	0.52	.77	–
Language proficiency	1447	4.43	0.65	.82	.06
Congruency monitoring	1447	-0.84	0.90	.91	.39
Congruency scaffolding	1447	-0.61	0.88	.87	.40
Interest	1447	2.98	0.97	.91	.27
Competence	1447	3.27	0.94	.86	.08
Relatedness	1447	3.38	0.83	.85	.28
Autonomy	1447	3.46	0.81	.67	.07

Table 4.1 shows means, standard deviations and the ICCs of the variables. The ICC of the variables ranged from .06 (Dutch language proficiency) to .40 (Congruency Scaffolding). These indicate that teacher variation can account for 6% to 40% of the variance of the variables. The results indicate that the data are not independent. MSEM is necessary for making valid statistical inferences.

The total covariance matrix was partitioned into pooled within- and between-sample covariance matrices. The square root of the ad hoc estimator constant or the scaling parameter was 4.30. The proposed model, analyzed on the within-sample covariance matrix, fit the data well, χ^2 (6) = 38.47, $p < .001$, N

= 1351, CFI = 0.99, SRMR = .03, RMSEA = 0.06. Not all parameters were significant, namely Congruency Monitoring with Competence, and Autonomy, and the covariance between, competence and relatedness, and autonomy and relatedness. Progressive removal of the non-significant links yielded a final within model that fit the data well, χ^2 (10) = 42.84, $p < .001$, N = 1351, CFI = 0.98, SRMR = .03, RMSEA = 0.05 (Figure 4.1).

Analysis of the between-variance matrix mirrored the final within model, but added the prediction of congruency in monitoring and scaffolding with teacher efficacy yielded a poor model fit, χ^2 (15) = 40.33, $p < .001$, N = 77, CFI = 0.90, SRMR = .14, RMSEA = 0.15. Adding the prediction of perceived competence and relatedness by teacher efficacy yielded an improved model ($\Delta\chi^2$ (2) = 20,34, $p < .001$), that fit the data reasonably well, χ^2 (13) = 19.99, p = .096, N = 77, CFI = 0.97, SRMR = .09, RMSEA = 0.08, considering the small sample size of between units.

The MSEM of the multilevel model on both the within and the between matrix fit the data well with χ^2 (30) = 54.25, p = .004, CFI = 0.99, SRMR = .048, RMSEA = 0.045. The multilevel model with parameter estimates and standard errors of parameter estimates are shown in Figure 4.1.

The model shows that while teacher efficacy for instructional strategies negatively corresponds with congruency in perceived AfL, the incongruency is somewhat negated by the positive association between teacher efficacy and student's perceived competence and relatedness. 33% of individual, and 70% of classroom level motivation could be explained by the model, which confirms the hypothesis that congruency in the perception of AfL-practice positively predicts students' intrinsic motivation, which is mediated by basic need fulfilment. High teacher efficacy and lower student language proficiency correspond with incongruent perceptions, which translate into lower intrinsic motivation.

The basic need for autonomy is a significant indicator for intrinsic motivation at the individual level, but not at the teacher level. However, the parameter weight is low in both levels. At the teacher level, teacher efficacy is a good indicator for classroom perceptions of competence and relatedness, offsetting the negative relation between teacher efficacy and congruency in AfL perceptions. At the individual level, language proficiency is a significant, albeit weak, indicator of congruent perceptions of AfL, whereas these relations are not significant at the teacher level.

Overall, at the individual level, the results show that student language proficiency corresponds to better congruency between teachers and students. Congruent perceptions of AfL, and congruency in perceived scaffolding in particular, positively relate to intrinsic motivation, mediated through basic need fulfilment. At the teacher level, the relation between congruent perceptions and classroom intrinsic motivation is less clear.

4.4 Discussion

Linking assessment perceptions to student motivation

The aim of this study was to test the hypothesis that differences between students and teachers in the perception of monitoring and scaffolding activities

Table 4.2: Tested within, between and MUML-multilevel models and their fit measures.

	Model	χ^2**(df)**	**CFI**	**SRMR**	**RMSEA**	$\Delta\chi^2$**(df)**
1	Within model_baseline	54.94*	.98	.03	.06	-
2	Within model parsimonious	55.20*	.98	.03	.05	0.26^{ns}(model 1 vs 2)
3	Between model	41.93*	.90	.13	.14	
4	Between model + efficacy -> comp, relat	20.53	.97	.08	.08	21,40*(model 5 vs 6)
5	MSEM (combined within, between)	68.68*	.98	.05	.05	

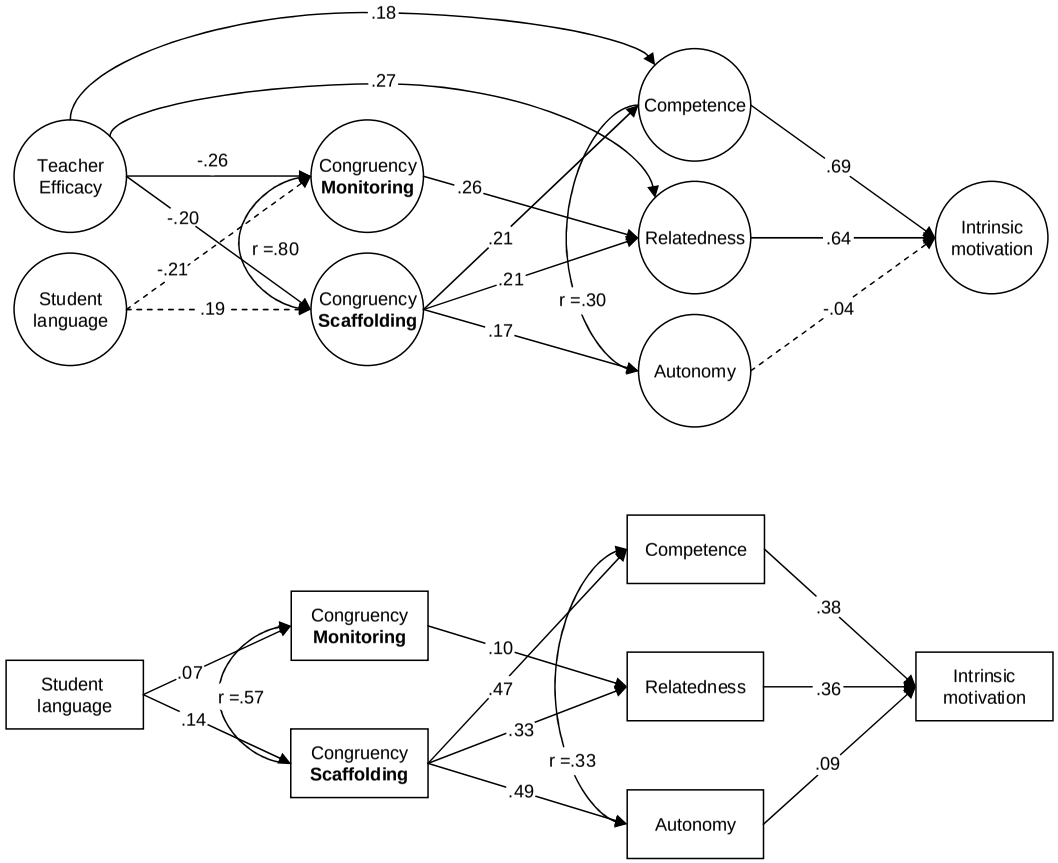

Figure 4.1: between (top) and within (bottom) model and parameter estimates. Nonsignificant lines are represented as dashed lines

would predict students' intrinsic motivation as mediated by the students' basic needs of Competence, Autonomy, and Relatedness. It was expected that students who are more proficient in the language of instruction would be more congruent with their teachers, and that teachers who are more efficacious in their teaching would be less congruent with their students.

Teacher-student congruency in AfL-perceptions and student motivation

The study's main hypothesis was confirmed; congruency in teacher-student perception of assessment for learning (AfL) practices, i.e., specifically monitoring and scaffolding, predicted higher student intrinsic motivation. In a multilevel structural equation model this effect accounted for 70% of classroom (aggregated group level) and 33% of individual students' intrinsic motivation.

Using the fit of the equation model, we were able to partly link congruency in perceptions of assessment practices on monitoring and scaffolding to students' language proficiency, and were able to establish a negative relation with teacher efficacy for instructional strategies. The negative teacher efficacy relationship with assessment for learning and student motivation could be explained by the argument that teachers who are highly confident in their ability to teach focus more on (stress and expect more of) student use of given feedback (monitoring or scaffolding) and highlight in their assessment for learning practice specifically their teaching goals and intentions, which subsequently may overestimate their students' evaluations and perceptions of AfL (Swann Jr. et al., 2007; Wheatly, 2002).

In clarifying our main expectation, that alignment in perceptions on assessment practices influences student motivation to learn, Self-determination Theory (SDT) (Deci & Ryan, 1985) was employed as a framework. The relationship between intrinsic motivation and congruency in the perception of Scaffolding was found to be mediated by basic need fulfilment, whereas the relationship between congruent teacher-student perceptions of Monitoring with interest was mediated by Relatedness only. The Framework of SDT also helps explain the (unexpected) effects found for teacher efficacy (Tschannen-Morann & Hoy, 1998). We found that high teacher efficacy negatively relates to congruency, but positively to fulfilment of the needs for competence and relatedness. Within the SDT framework we interpret this in the sense that efficacious teachers seem to inspire feelings of competence in their classrooms, and are perceived as more likeable, partly offsetting the negative effect of incongruent perceptions in their classrooms on classroom intrinsic motivation.

Some of our findings were at odds within the SDT framework. Autonomy, as a significant predictor of intrinsic motivation in our model at the individual level, seems to be a weak predictor at the classroom level. We found a large amount of within classroom variation, but very little at the classroom level for autonomy. While experiencing autonomy seems motivational for students, there seems to be little contribution from the classroom environment to those feelings of autonomy. It is possible that students do not strongly respond to teachers' efforts in supporting autonomy, or as Kunter and Baumert (2006) proposed after reporting similar findings: student ratings are easily influenced by their personal preferences. This is supported by our finding that there is a strong correlation between feelings of competence and feelings of autonomy,

which might indicate an interaction. Students who feel less competent might prefer more support, and thus less autonomy, whereas self-perceived competent students might appreciate the extra autonomy in their learning.

To summarize, the fit we found in our tested models for the relation between perceptions on assessment and student motivation: at the individual level, students who are proficient in the language of instruction are more aligned with their teachers in perceiving the assessment for learning practices in their classroom. Alignment in the perception of scaffolding activities such as clarifying goals and assessment criteria, and use of questioning coincides with high basic need fulfilment and subsequently, higher intrinsic motivation. Alignment in the perception of monitoring activities, such as providing feedback, and feedforward either through the teacher, or by supporting peer- and self-assessments coincides with high relatedness (friendly learning climate for the student). In classrooms with high efficacious teachers, however, there is less congruence in AfL perceptions between teacher and students which has a negative association with motivation. This was interpreted to be offset by the students' fulfilled needs for feeling competent, and relatedness to their more efficacious teacher.

The need for congruency in AfL perceptions

The results highlight the importance of a "fit" in perception on assessment meant to enhance learning: teachers' and students' mutual understanding on the nature and utilization of assessment information is a key in utilizing that information to enhance learning within an instructional context (Birenbaum et al., 2006). Perceived alignment in the intent and content of scaffolding and monitoring activities indicate clarity in goals and expectations between teachers and students on what needs to be learned and what progress in achievement is and needs to be made. The high amount of explained variance of congruency in assessment perceptions on motivation lends support to the claim that a mismatch results in a loss of effectiveness of instruction (Norman, 1986; Bartholomew et al., 2001). The issue of reaching congruency seems to be an important instructional activity, since we could relate it to instructional efficacy of teachers. We assume that it is likely that setting high expectations by teachers on goal attainment and setting standards for learning accomplishment of their students may be at odds with student perceptions of assessment practices meant to reflect their current mastery and to foster learning motivation. A high discrepancy in perceptions may be detrimental to the students' perception of being able to comply. The results indicate, unsurprisingly, that secondary school teachers in general have little influence on the language proficiency of their students, but that students low in language proficiency still have more difficulties in the understanding and recognition of AfL as support (Bartholomew et al., 2001). This would imply that interpersonal aspects of teachers' instructional efficacy may be more advantageous when teachers high in efficacy also take care to realize that language-ability differences complicate students' recognition of their support. A more statistical interpretation of the absence of classroom-language effects is that the already small effect of language at the individual level becomes even smaller when aggregated into classroom averages. The relatively small amount of classrooms to compare could have resulted in a loss of power.

Our findings lend support to the contention that assessment practices need to be carefully scrutinized as they are closely linked to motivation to learn. Especially with respect to the position teachers take in the delivery of assessment information by bridging the need of high expectations and student needs to be motivated to learn. Finding alignment according to the SDT framework we employed is established by addressing the competence and relatedness needs of the student.

Some drawbacks need to be mentioned however in suggesting too strong implications. Due to the cross-sectional nature of the data, it is not possible to draw causal conclusions about the nature of the relationship between teacher-efficacy and congruency of AfL perceptions, or about the possibility of changing congruency of perceptions by making teachers aware of the double edged sword of their own efficaciousness. Quasi-experimental research is needed to test the effectiveness of making teachers aware of the effects of their efficacy beliefs on their perceived practice and how it blocks their ability to adapt their teaching in order to keep their students motivated.