

## TEACHERS CLASSROOM ASSESSMENT FEEDBACK AND STUDENT MOTIVATION :A LITERATURE REVIEW

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### Abstract

The paper is a literature review aiming to examine the relationship between teachers classroom assessment feedback and student motivation . Previous studies have been mainly focused on how each of the two has influenced students performances and achievement . However , according to the theoretical framework proposed by Brookhart (1997 ) , it has been suggested that teachers feedback may influence student motivation first , which , in turn , may have an impact on students performances and achievement . Therefore , this paper first examines the nature and different types of feedback , and then gives a summary and critique of research studies on the relationship between teachers feedback and student motivation . Areas that deserve further study are also indicated .

### Key words

classroom assessment feedback ; student motivation ; literature review

### Introduction

In the classroom settings , teachers are constantly conducting various kinds of assessments to draw inferences about their students , for example , their knowledge , skills , attitudes , behaviors , etc . ( Anderson 1989 , 1990 ) . At the same time , teachers provide various kinds of feedback to students , such as their judgment of their students , their expectations , and what is valued in their class . It has been increasingly recognized that teachers feedback is an important factor influencing students learning ( Kluger & DeNisi 1996 ) . Costa and Kallick (1995 ) pointed out that feedback is one of the chains in the continuous system of teaching , learning , assessing and feedback and beneficial feedback can be “cyclical guides to learning and continued progress ” (p .25 ) , and thus may help make the whole system function as an upward spiral .

However , a theoretical framework proposed by Brookhart (1997 ) based on classroom assessment environment literature and learning and motivation literature indicated that teachers classroom assessment feedback , together with other elements of a classroom assessment event , influences students motivation first , and then their achievement . In other words , this external factor — feedback , is mediated by the internal factor — student motivation , before it has an impact on students performances and achievement . Student motivation actually functions as an in-between mechanism . Considering the important function feedback plays in classroom teaching and learning , it should be worthwhile to further probe feedback into its nature and examine the effects of different types of feedback on students motivational variables . The following is a summary and critique of research studies on the relationship between teachers classroom assessment feedback and student motivation . First is a review of teachers classroom assessment feedback , and then a review of student motivation in relation to teachers classroom assessment feedback . The final part summarizes the findings and indicates areas that deserve further study .

## Summary and Critique of Related Literature

### Teachers Classroom Assessment Feedback

Researchers have approached the nature of teachers classroom assessment feedback from different perspectives and have used different terms to distinguish different types of feedback .

Ryan and other researchers (1985) put forward two types of feedback :informational versus controlling from students perspective based on their cognitive evaluation theory . According to their theory ,student intrinsic motivation will increase if an action results in experience of autonomy and perception of competence . Therefore ,a piece of feedback is informational if it leads to student perceptions of competence or expectation of future competence ,and is controlling if it leads to student perceptions of being forced to act in a certain way .

This kind of distinction was criticized in Butler's study (1987) who cited studies with mixed findings on the effects of positive information about competence on intrinsic motivation .She pointed out that the reason for the conflicting results was because the researchers failed to consider if the information was task involving or ego involving . Therefore ,she proposed another two terms to distinguish feedback :task -involving and ego involving based on goal orientation theory ( Nicholls 1979 ,1983 ,1984 ,cited in Butler , 1987 ) . If a piece of feedback focuses student attention on task demands and mastery ,it is task involving ; if it focuses student attention on self-worth and comparison with other students ,it is ego involving .

One point in Butler's criticism deserves our attention . She literally translated informational feedback to providing information about student performance and competence but overlooked the element of student perception that was also included in Ryan et al .s theory . Therefore ,the informational versus controlling should be tenable from student perspective ,but its weakness is that it may not be very informative and helpful for educators to manipulate feedback so as to bring about some positive effects on student motivation . In this respect ,Butler's distinction should be more valuable because it informs teachers that feedback focuses on different things may bring about different motivational orientations and consequently different achievement .

Schunk (1983) used another two terms to distinguish feedback based on attributional theory ( Weiner 1977 ,1979 ,cited in Schunk 1983 ) and studied the differential effects of ability attributional feedback and effort attributional feedback on self-efficacy and achievement . The two types of feedback were operationalized in the following way :ability feedback is a remark —“ You are good at this ,” and effort feedback is a remark —“ You've been working hard ” ( Schunk 1983 :851 ) . Obviously ,what was examined in this study was just a small portion of all the possible feedback that a teacher can give to his / her students . According to the typology of feedback generated by Tunstall & Gipps (1996) ,what was examined in Schunk's study (1983) mainly belongs to “approval” type of feedback that is positive and evaluative .

Tunstall and Gipps (1996) conducted a one-year longitudinal study and worked out a typology of feedback that teachers use to young children in formative assessment . They identified two major strands along which feedback generally functions :socialization and assessment . When feedback is used to inform and reinforce the values ,attitudes and classroom procedures to children ,it is an instrument of socialization . But in most cases ,it is used as an extension of assessment mainly to provide children with information about their performance and competence . Assessment feedback is of major concern here .

A comparison of this typology with the classification proposed by Butler (1987) may show that these two ways of looking at feedback generally match each other ,except that this typology is more detailed . Figure 1 summarizes the types of feedback identified in Tunstall and Gipps's study .

It can be seen from Figure 1 that descriptive feedback directs student attention to task itself and emphasizes task mastery and further improvement ,and therefore can be said to be task involving ;while evaluative feedback directs student attention to external forces (such as rewards or punishment or teachers opinion) and emphasizes self-worth and comparison ,and therefore can be said to be ego-involving . The typology is more detailed for it indicates that evaluative feedback can be either positive or

negative ,but all descriptive feedback is positive .It further shows that teachers feedback actually falls somewhere along the continuum from most evaluative such as rewards or punishment to most descriptive such as constructing the way forward . The evaluative or descriptive feature of feedback is not a matter of absence or presence ,but a matter of degree ,which implies that evaluative feedback and descriptive feedback is not clear cut ,but there might be some fuzzy areas between them . Certain types of feedback may contain both evaluative and descriptive features at the same time .

Figure 1 . A summary of the typology of feedback based on Tunstall and Gipps s study (1996 )

One more strength of this typology is that descriptive feedback is further divided into two subtypes which reflects two different perspectives towards learning :specifying attainment and /or improvement is related to mastery perspective ,and constructing achievement and /or the way forward is related to constructivist perspective . This subdivision shows that task involving feedback can be further divided into two types according to its functions :one type focuses on the domain content while another focuses on strategy use . Nowadays ,with classroom assessment being more and more embedded into ongoing instructional activities and focusing more and more on assessing students deep level thinking ( Wilson 1996 ;Young & Wilson 2000 ) ,it should be worthwhile to examine the different effects of the two subtypes of task involving feedback on student motivation and learning .

In an extensive review of the studies on the effects of feedback on learning ,Kluger and DeNisi (1996 ) found that although feedback on average improved learning outcomes ,one third of 607 effect sizes were negative . They used a theoretical hierarchy linked to the literature in motivation to explain this phenomenon . This hierarchy distinguished between task oriented feedback ,which tended to enhance learning ,and self oriented feedback ,which tended to be debilitating . Their review proved both the function of motivation as an in between mechanism and the usefulness of task ego distinction in studying feedback .

It can be seen from the above review that task versus ego distinction of feedback seems more encompassing and informative to researchers and teachers ,and mastery versus constructive distinction should be a valuable distinction as well which may help understand task involving feedback better .

#### Student Motivation in Relation to Teachers Classroom Assessment Feedback

Motivation is a kind of “ personal investment ” which is reflected in the “ direction ,intensity ,persistence and quality of what is done and expressed ” ( Maehr & Meyer 1997 :373 ). Educational psychologists have studied motivation from its origins mainly and have identified quite a few constructs that are believed essential in influencing people s personal investment ( Ames & Ames 1984 ;Dornyei 2001 ). With regard to the studies on the effect of feedback on motivation ,the following motivational constructs have received most attention :intrinsic motivation ,task oriented /ego oriented goal ,attributions about past success or failure ,and perceived self efficacy .

Reward ,a positive and extremely evaluative type of feedback ,has been studied extensively with its impact on intrinsic motivation (Stipek 1996 ) . Based on the studies he reviewed ,Stipek summarized that the effect of rewards is not straightforward .“ Rewards undermine intrinsic interest to the degree that they are perceived to be controlling ,and the controlling function can be conveyed in variable and subtle

ways" (p. 98). However, when "the information value of rewards is salient —that is, when rewards are interpreted as conveying positive information about competence —they can actually increase intrinsic motivation" (p. 98). However, Cameron and Pierce (1994), based on their meta-analysis of 96 experimental studies, concluded that reward, overall, does not decrease intrinsic motivation, and the only negative effect appears when expected tangible rewards are given to individuals simply for doing a task. Cameron and Pierce's article drew severe criticisms for its oversimplified conclusion and problematic methods and analysis (Lepper et al. 1996; Ryan & Deci 1996; Kohn 1996).

One possible reason for the conflicting results concerning the effects of reward on intrinsic motivation probably lies in the fact that the researchers did not break down reward into different types according to its nature. One recent study on praise (Henderlong 2001) showed that to distinguish praise according to task-ego distinction proposed by Butler (1987) may be an effective way to understand its effect on motivation for older children. Henderlong examined the effects of praising a child versus praising aspects of the child's performance on the child's intrinsic motivation. The results showed a gender difference for upper elementary students, but no difference for preschool children.

It should be noticed that all the researchers who studied reward seemed to be mainly concerned with intrinsic motivation. There seems to be an underlying assumption that intrinsic motivation is better than extrinsic motivation. However, according to the latest version of intrinsic and extrinsic motivations by Ryan and Deci (2000), intrinsic and extrinsic motivations are qualitatively different in terms of what motivates one to do a task, but intrinsic motivation and two types of extrinsic motivation (identification and integration) share many things in common in terms of actual behavior. Doing something for sheer enjoyment is intrinsic motivation, while for its instrumental value is extrinsic motivation. But identification and integration types of extrinsic motivation can be as self-determined and valued by the self as the intrinsic motivation (p. 62). Therefore, both intrinsic motivation and identification and integration types of extrinsic motivation should be desirable in educational context (p. 61). Consequently, it should be worthwhile to study the effects of reward, or any other type of feedback, on both intrinsic motivation and extrinsic motivation, and those types of feedback that can bring about higher autonomy level of extrinsic motivation should also be advocated in classroom settings.

Schunk (1983) based his study on the self-efficacy theory (Bandura 1977, 1981, 1982, cited in Schunk 1983) and attributional theory (Weiner 1977, 1979, cited in Schunk 1983), and conducted an experiment to examine the effects of ability and effort attributional feedback on children's perceived self-efficacy and achievement. The subjects were 44 third grade children and the study used a pretest-treatment posttest design. There were four treatment conditions: effort feedback, ability feedback, ability + effort feedback and no feedback. The results showed that children who received ability feedback only had the highest self-efficacy and performed best. There was not much difference between effort condition group and ability + effort group, but both groups outperformed the no feedback condition.

Actually this study was particularly focused on one type of positive and evaluative feedback: encouragement. It demonstrated the value of attribution theory in understanding the effects of this type of feedback on motivation. However, because this study was so focused, it did not examine the effects of other types of feedback, and how the effects of this type of feedback differ from the effects of other types. In Butler's study (1987), she found that task-involving feedback is better than ego-involving feedback in terms of enhancing interest and performance. But in Schunk's study (1983), this ego-involving feedback can also be very positive and enhance performance. Their incongruent findings probably resulted from their experimental design. It should be worthwhile to study their respective effects and combined effects in real contexts.

Butler (1987) approached feedback from its nature and conducted a true experiment to study the effects of feedback on students' goal orientations, interest, and performance. Her design was similar to Schunk's design, but her subjects were randomly sampled which enhanced the internal validity of the study. She assigned the subjects into four different feedback conditions: comments (task-involving), grades (ego-involving), praise (ego-involving), and no feedback condition. She used an attribution questionnaire to infer student goal orientation from their causal attributions. Her study showed that task-involving feedback (comments) tended to promote task-oriented goal, and ego-involving feedback

(grades ,praise )tended to promote ego oriented goal ,and no feedback promoted neither .She also found that students who received task involving feedback showed higher subsequent interest and performed better than students who received ego involving feedback or no feedback . This indicates a positive relationship between task involving feedback and subsequent interest and performance . Her study also showed that praise would not enhance interest if it were provided in a way to promote ego oriented motivation .

In a follow up study ( Butler 1988 ) ,she made some changes to the feedback conditions . This time the four conditions were :comments ,grades ,praise ,and grades plus comments . What was consistent in this study with the previous study was that only task specific comments would improve continuing motivation and performance ,while ego involving feedback (grades and praise ) would focus student attention on self-worth and comparison and thus cause a decrease in performance . When students received both task-involving and ego involving feedback (grades and comments ) ,their ego oriented goal took an upper hand and their performance decreased .

Butler s studies ,especially the earlier one (1987 ) ,are valuable in the following two ways . It bridged the gap in task motivation by proving that task ego oriented goal towards an immediate task can be further sustained by different types of feedback . It also demonstrated a strong causal relationship between task ego involving feedback and the two types of goal orientation and subsequent interest and performance .

However ,it also has some weaknesses . Its experimental design as well as the characteristics of its subjects (fifth and sixth grade Jewish Israeli pupils ) may greatly reduce its external validity . In other words ,the same results may not be applicable in a different context . Probably her design suited her purpose well ,but this experimental design resembles little of real classroom contexts . More importantly ,she did not take into consideration students original goal orientations before they received the feedback treatment . It has long been realized that " characteristics of both the individual and the situation are thought to interact to impact the state of goal involvement adopted and resultant achievement patterns " ( Dweck 1986 ;Nicholls 1989 ,cited in Newton & Duda 1999 ) . Therefore ,to make the research findings more applicable to real classroom contexts ,other research methods probably should be adopted and student individual differences should be taken into consideration .

Lackey and other researchers ( 1997 ) conducted a correlational study examining the effects of teachers written feedback on students goal orientation and self efficacy and consequently on their writing performance in a real life setting . The subjects were 137 students in a second semester freshman -level college English composition class and 5 second semester graduate assistant teachers ,and the study used a pretest posttest design . Students goal orientation ,self efficacy and writing performance were measured both at the beginning and the end of the term . The feedback was categorized mainly based on Butler s task ego distinction ,though they also made use of Schunk s finding on praise (1993 ,cited in Lackey et al . 1997 ) and considered the real feedback students received in this course . In their study ,feedback was categorized into six groups :task specific comments ,written direct praise ,written non-direct praise ,contradictory or ambiguous comments ,written grades ,and atheoretical comments including error correction on grammar ,spelling ,sentence structure ,etc . The results supported Bandura s contention ( Bandura 1986 ,cited in Lackey et al . 1997 ) that self efficacy is malleable and positively related to improvements in performance . The results also supported the finding from Butler s study (1987 ) that there is a positive relationship between task specific comments and students task oriented goal and their performance . However ,the study failed to support Butler s conclusion that ego involving feedback (grades and praise ) should be positively related to ego oriented goal .

The strengths of this study are obvious . It examined the relationship between teachers written feedback and changes in two of students motivational variables in one particular context over a period of a whole term . Compared with the experimental design ,the results from this study should be more informative and beneficial for teachers in similar teaching contexts . Furthermore ,the researchers considered two motivational variables as individual differences in their investigation ,and measured them both at the beginning and the end of the term . In their analysis ,they used certain statistical tools to find out both changes of those variables over time and how they interacted . I am not very confident about their statistical analysis ,but this interactive research paradigm ( Maehr & Meyer 1997 ) should be more

true to real classroom contexts . However ,the inconsistent finding concerning ego involving feedback may require further studies that take into consideration more variables to clarify the interactive patterns .

To sum up ,researchers so far have mainly focused on a few motivational constructs :intrinsic motivation ,goal orientation ,causal attribution ,and self efficacy ,when investigating the relationship between teachers classroom assessment feedback and student motivation . There have been consistent findings that providing feedback is better than no feedback in promoting students to learn ,and generally speaking ,task involving feedback is beneficial . Inconsistent findings particularly exist in the effects of ego involving feedback .

## Summary

While motivation is regarded as a most important factor in influencing student learning ( Maehr & Mayer 1997 ) ,it should be worthwhile to examine factors that may influence student motivation , especially those factors that classroom teachers can control so as to make our teaching more effective . Obviously ,teacher s feedback is one of such factors worth investigating .

The above review indicates that previous studies have touched upon this relationship between teachers feedback and student motivation ,but didn t examine this relationship in a comprehensive way . Those researchers have approached this relationship from their own specific perspectives . However , what they have done and found provide valuable basis for further research .

With respect to teachers feedback ,although different researchers have used different terms to represent the nature of teachers feedback ,there seems to be an agreement about the two essentially different types of feedback :one focusing on students performance on a task (informational feedback as in Ryan et al . ,task involving as in Butler s study ,effort attributional feedback as in Schunk s study ) ,and one focusing on students themselves (controlling feedback as in Ryan et al . ,ego involving as in Butler s study ,ability attributional feedback as in Schunk s study ) . Furthermore ,Tunstall and Gipps s typology not only supported this distinction ,but also provided more information about task involving feedback ( mastery versus constructive distinction ) . However ,most previous studies have used this task versus ego distinction when examining the relationship between teachers feedback and student motivation ,while no study has been done using Tunstall and Gipps s typology . Since this typology is more comprehensive , future research may use this typology as a starting point to examine teacher s feedback in the classroom .

With respect to student motivation ,different researchers have focused on different motivational constructs ,that is ,the underlying reasons for student motivation (intrinsic motivation ,goal orientation , causal attribution ,and self efficacy ) ,rather than the behavioral aspect of motivation such as students choice on a task ,persistence on those tasks ,vigor in carrying them out ,continuing motivation when the task is over ,etc . ( Maehr & Meyer 1997 ; Wigfield & Eccles 2000 ) . Since what really counts in student learning is their choice ,effort ,and persistence ,future research should move a step further to examine both the underlying reasons for their motivation and their motivational behavior . In this respect ,an expectancy value model of achievement performance ( Wigfield & Eccles 2000 ) may act as a guide for further studies in this area . This model tries to explain how the expectancy and value constructs relate to students performance and choice . This model integrates such motivational constructs as intrinsic motivation ,goal orientation ,causal attribution ,self efficacy ,as well as many other social and individual factors . More specifically ,it argues that students interpretation of expectancies where causal attributions play a role may influence students goals and general self schemata where goal orientation theory and self - efficacy theory are related ,which may in turn influence students subjective task value where intrinsic motivation are related ,which may in turn influence students achievement related choices . What is explained here is not to show that the relationship among these factors is a simple linear one but to show the comprehensiveness of this model ( Wigfield & Eccles 2000 :69 ) . Therefore ,future research based on this model may generate more comprehensive understanding of student motivation .

Regarding the specific area about the relationship between teachers feedback and students

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Many other classroom factors may also influence student motivation in addition to teacher s feedback such as classroom activities ,teacher s personalities ,etc . (see Ames ,1992 )

motivation ,previous studies seemed consistent on the positive effect of task involving feedback on student motivation . However ,there has been some inconsistent findings concerning the effects of ego involving feedback . Therefore , more research is needed to get a better understanding of the effects of ego - involving feedback on student motivation . As discussed above ,if future research can make use of Tunstall and Gipps s typology to understand teachers feedback and the expectancy value model to understand students motivation ,a more comprehensive and thorough understanding of this relationship may be revealed .

It should be noted that all the studies reviewed here were conducted in foreign countries . A search of the major English language teaching journals in China in the past five years actually revealed few studies that have dealt with this area ,except for an increasing interest in teachers classroom assessment ,either formative evaluation ( Cao et al . 2004 ; Wang 2004 ) or achievement testing ( Yuan 2002 ) . However , considering the large number of Chinese students who are learning English as a foreign language and the large amount of time students spend learning English , further studies on the relationship between teachers feedback and student motivation should provide valuable pedagogical implication for our English language teaching .

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