STUDENT PERCEPTIONS OF THE THEORY/PRACTICE NEXUS IN TEACHER EDUCATION: A LONGITUDINAL STUDY

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ABSTRACT

This paper reports findings from a study conducted at the University of Technology, Sydney which involved evaluating the experiences of a cohort of teacher education students over the first three years of their initial teacher education program. Extensive data were collected by questionnaire and interview on six different occasions, and analysed using a grounded theory approach that yielded thematic constructs. This paper focuses on one of these thematic constructs - the nexus between theory and practice, and specifically on the extent to which students perceive that their academic program content prepares them for their field-based experience or practicum. The findings are reported in terms of the major sub-themes apparent from refining data categories, viz. the realism of teaching, behaviour management, lesson planning, practicum assignments, assessment and evaluation, relationships with teachers, and the role of the tertiary adviser. Such findings have implications for contemporary teacher education programs that seek to realise national standards and guidelines.

Introduction

The nature of initial teacher education has varied historically and culturally with changing views of the role of the teacher, with changing political and economic circumstances and with ideologies (Calderhead & Shorrock 1997). Arguably the most contentious dimension of initial teacher education programs is the nexus between theory and practice. The ways in which that relationship is articulated and conceptualised by the designers of teacher education programs and interpreted by those who teach within them may or may not be reflected in the perceptions of their students. Knowledge of students' perceptions of the purposes of their university-based program and their assumptions about the inter-relationships of that program with classroom experience is essential for program evaluation and development. This study reports upon student teacher perceptions of the theory-practice nexus the three years of their three-year Bachelor of Teaching in Primary Education (BTeach) course at the University of Technology, Sydney (UTS).

Traditionally within teacher education, theory and practice have been regarded as separate entities (Calderhead, 1988), with responsibilities for explicating theory being assigned to university teacher educators and responsibilities for explaining and supervising practice being regarded as the domain of practising classroom teachers. Somewhere within that division of labour were situated tertiary advisers. The effectiveness of their implementation of traditional roles of assisting professional development of student teachers within the classroom has been called into question in the recent past (eg. Eltis and Cairns, 1982).

Problematic for university teacher educators is that with false perceptions of a dichotomy between theory and practice, students attach higher value to their practicum studies than to their university component (Lanier and Little, 1986), in part because of the vivid and emotional impact of practice teaching (McNally, Cope, Inglis and Stronach, 1994). During this process of separation of theory and practice, student teachers undervalue the contribution of theoretical studies to their development. In failing to recognise explicitly many aspects of inter-relationships between theory and practice - for example, how theory is implicit in practice - a danger is that the value of the interaction of theory with life-long learning and reflection-in and -on practice will be impoverished.

The notions of 'theory is only valuable in-so-far as it can be used in action,' and 'there is nothing more practical than a good theory' are pervasive in teacher education on two broad levels. First, there is the extent to which the theoretical content of programs can be used by student teachers in classrooms during practice teaching. The subject matter content (knowledge of discipline areas, called key learning areas in New South Wales) and pedagogical content (strategies for imparting such knowledge) must be seen by students to have relevance and utility.

Second, there is the extent to which the field-based component of programs, provides a meaningful opportunity to implement the theory in practice, and less reasonably for teacher educators, the extent to which the theory provides a panacea for every unforeseen classroom situation. These two levels, the predicted relevance of the theory/practice relationship (imparted in lecture rooms), and its demonstrated relevance in the practicum, are closely related, but students do not always perceive the many complexities in their inter-relationships.

Teacher education reform in Australia, England and the U.S. has renewed attention on the relationship between theory and practice. Studies focussing on the failure of teacher education students to implement specific theories in practice (Grant and Koskela, 1986) are more recently expressed by Duquette (1993), arguing the need for more demonstrable links between theory and practice.

Many teacher education courses in the UK and elsewhere have assumed that the philosophy of reflective practice will create the theory-practice links. According to a 1991 survey in England and Wales, over 70% of teacher education courses claim to be underpinned by a model of reflective practice (Barrett, Whitty, Furlong, Galvin and Barton, 1992; Miles et al., 1993; Whitty et al., 1992). However, Calderhead (1989) argues that the notion of what constitutes reflection lacks conceptual clarity and hence students do not necessarily make the desirable links. Partly this lack of clarity stems from the different intellectual origins of reflection: from the work of Dewey (1910, 1933) and from Schön (1983, 1987).

Along with other initial teacher education courses, the course at the University of Technology, Sydney (UTS) would claim to be underpinned by reflective practice. However, it cannot be claimed that the same meaning for this concept is shared among those who lecture to the students. Nor does the UTS course endorse specific pedagogical practice in

each of the education and methods subjects. Hence the longitudinal study reported in this article is not concerned with a model of teacher education or with specific pedagogy. It is concerned with the value of the practicum or field-based experience, and the extent to which program participants enrich and are enriched by that experience.

The study traces evolving student perceptions that are interpreted from data collected by questionnaires and intensive interviews of a cohort of 27 students on a variety of key occasions over a three-year period. Initial data were collected in the first week of the program in March 1996 and latest data reported here were collected in October, 1998 at the end of third year.

Theory-Practice Nexus and the Practicum

Initial teacher education literature exploring the theory/practice nexus focuses on particular and sometimes innovative programs like Moore, Comfort and Biermann's (1988) five-year teacher education program in Virginia, or Rikard and Beacham's (1992) Model Clinical Teaching Program (MCTP) or teaching internship program. More frequently, the focus is on specific pedagogy. Merkley and Jacobi's (1993) work on the use of instructional media to learn about teacher behaviour; Wedman and Martin's (1991) research on the differences between reflective and non-reflective practices; and Gorrell and Capron's (1988) study on the advantages of cognitive modelling as opposed to direct instruction, are examples. The work of Bredeson and Scribner (1996) and Winograd (1995) on the value of school-based action research in initial teacher training, constitute more specific instances of pedagogy.

The literature on the nature and value of field-based experience (the practicum) is extensive and contentious. The length of the practicum in the UK has recently increased, and the time spent in lecture rooms has correspondingly decreased. Only rarely has the notion that more practice must be beneficial been challenged (Lapin 1991), and the weight of literature support does favour the value of more practicum. Cannon and Scharmann (1996) endorse the value of a cooperative early field experience on student primary teachers' science self-efficacy, and Rothenberg, McDermott and Gormley (1993) claim that teacher education students were more confident about their capabilities after the practicum. Dunkin, Precians and Nettle (1994) and Lapin (1991) provide further support for the value of the practicum.

Educators have studied concerns of teacher education students about the practicum over a number of years (eg. Fuller, 1969; McCormack, 1996). Fuller's theory of developmental concerns proposes that student teachers progress through three stages as they move through their course. The stages are characterised initially by a concern for self where student teachers worry about personal adequacy and survival in the classroom. Later in their course, with more confidence in themselves and in their relationships with children and the cooperating teacher, student teachers enter the second stage, characterised by a concern for task where they become more focussed on the demands of the daily tasks of lesson preparations. In the final stage, student teachers become more focussed on providing for the needs of individual children. Some studies (eg. Behets, 1990; McCormack, 1996) offer only partial support for Fuller's theory.

With the move in Australia from teaching diplomas to degrees; three to four year programs; and quality assurance mechanisms to promote greater accountability and quality in teaching, teacher education institutions regularly conduct course and subject evaluation. At UTS, evaluation of the new fourth year Bachelor of Education (BEd) in Primary Education (Sharp, Squires, Lockhart, Cresswell and Groundwater-Smith, 1993; Groundwater-Smith, Deer, Sharp and March, 1997) resulted in significant changes to the practicum whereby students experienced a two week period in schools at the beginning of the school year, and a later six week period in the second school term. The introduction of a new four-year BEd in Primary

Education in 1997 involved further changes to the practicum. However these changes were more in relation to the 'practicum' academic subjects, and the curriculum subjects that relate to and prepare students for the field-based experience rather than to actual structural changes in the practicum itself.

Methodology

Prior to the beginning of the first week of teaching in 1996 an initial group of 40 students was randomly selected from students beginning the common first year of the BTeach. Every fourth student was systematically selected from the alphabetical roll with the aim of obtaining 30 students (assuming that some of those initially approached would decline the offer of participation). A final sample of 27 students was obtained.

This sample comprised a female to male ratio of 2:1, a higher ratio than in the entire cohort where the gender ratio was approximately 6:1. Such a ratio is typical of both other teacher education programs preparing primary school teachers, and the teaching profession as a whole. The age distribution of the sample indicates that most students were in their twenties, suggesting that these students had made a considered career move to teaching. (Students who enter university directly upon leaving school are aged about 18 in New South Wales.)

Although both student questionnaires and interviews were used, the latter was the major data source for information relating to the practicum. The interviews, each of approximately 40 minutes, were analysed using the grounded theory approach of Glaser and Strauss (1967) and the analytic induction of Lofland, a theory based on the view that 'face to face interaction is the fullest condition of participation in the mind of another human being' (1984, p.11). Interview reports were written using predetermined categories, and new categories were developed as themes emerged.

Table 1 (over page) displays the overview of data collection focussing on time and researcher intention.

Whole group meetings were also held on an annual basis with staff both to provide feedback and to elicit further information.

While much of the data obtained yielded valuable information on student perceptions of particular subjects and the BTeach. in general, the focus of this paper is to identify broad trends in the evaluation of student perceptions about the practicum and practice/theory nexus in relation to commonly expressed student concerns. The researchers believe that the findings will typify common trends and issues in other teacher education institutions with similarly structured degree courses.

Table 1. Overview of data collection

Time Focus Instrument 1. March 1996 Student expectations and concerns Questionnaire 2. June 1996 Student perceptions of first practicum experience. Interview 3. August 1996 Student perceptions of first semester Questionnaire 4. November 1996 Student perceptions of first two semesters, including practicum Questionnaire 5. November 1996 Student perceptions of grounded theory analysis of the study thus far. Focus Group 6. November 1997 Student perceptions of four semesters, including practicum experiences. Interview 7. March 1998 Student perceptions of grounded theory analysis of the first two years of study. Focus Group 8. October, 1998 Student perceptions of the course at the end of third year Interview & Questionnaire

Currently being analysed

The results are therefore reported as issues, and in a qualitative way to highlight the impact of student voices.

Findings

The findings are reported in terms of major themes apparent from refining the data category associated with the theory-practice nexus, viz. the realism of teaching, behaviour management, lesson planning, practicum assignments, assessment and evaluation, relationships with teachers, and the role of the tertiary adviser. The first of these themes, the realism of teaching, has connections to and overlaps with the other themes: it is therefore reported both in general terms and with emphasis on points of non-overlap with the other themes.

1. The realism of teaching

In 1988, Weinstein found that there was a consistent 'optimistic bias' among initial teacher education students: a belief that they would experience fewer problems than the average student. Such a finding has obvious implications for the 'reality shock', a term used by Veenman (1984) to describe the disintegration of ideals prior to experiencing classroom life as a student teacher, that usually follows.

The reported study found an evolving perception of the complexity and realities of teaching. While it is unfair to equate reality with gloom, there was some indication that by the end of the second year, the previously experienced honeymoon period had become a realistic appraisal of the work involved in teaching.

A common theme in the first practicum was the interpersonal satisfaction of working with children: 'kids on one to one'; 'how the kids responded to our lessons'; 'loved the kids'; 'helping on an individual basis'; 'interaction with the kids and staff'; 'watching the children learn'; and 'funny things to share with the family like the little boy asking me if I was married.'

The excitement generated by interpersonal relationships with children was typically supplemented by realisations about the learning capacity of children: 'I did not think the children would learn as much as they did'; 'I realised children could work on their own.'

By the time students reached second year, the greater realism was not necessarily associated with waning commitment, though there was some attrition in the number of students regarding teaching as a permanent career. Comments typifying a more mature perception of teaching include:

'Teaching is a lot harder than I expected.'

'Teaching is really exhausting.'

'The amount of preparation for each day ... trying to write up all the lesson plans plus the night before ... with what happened ... I've been tired right through prac. How to cope with slow learners, and how to make the transition from one lesson to another and also marking ...'

However, to dispel the equation of realism and gloom:

'It's definitely a lot more work than most people have realised before you started teaching at all. It's also a lot more rewarding than you first realised ... a lot of personal benefits. It's definitely strengthened my attitude to teaching rather than gone the other way.'

Such comments may be interpreted as offering qualitative support to Fuller's theory of progression from sole concentration on concern about self to concern with task and impact. So while there may well have been evidence of an 'optimistic bias' (Weinstein 1988), in the early practicums, such optimism was either supplemented or replaced by a more sober appreciation of the realities of teaching. Of course, such findings may also be explained by the number of practicums (UTS conducts a three-week block practicum each semester); the structure of those practicums (particularly the face-to-face teaching time mandated); the places where those practicums took place (in first year schools on the whole were situated in a 'higher' socioeconomic area than were schools in their second year); and additional academic requirements.

2. Behaviour Management

The difficulties of managing children remained a constant in the perceptions of students throughout the two years, and apart from lesson planning, was the area of greatest claimed learning.

Most students gave credence to the practice/theory nexus. Many gave credit to the input of the academic subjects on their subsequent classroom management (one academic subject focuses on management), and even those students who made little mention of the program's contribution, used the jargon (such as 'positive reinforcement') liberally. Students in the Focus Group discussion at the beginning of 1998 were united in their praise for the academic subject focussing on behaviour management, finding "the ideas and options very helpful." Some regarded the ideas as starting points for trying things out.

In the first year, students acknowledged general principles of classroom management such as the need to know children as individuals, and specific strategies including the use of voice to gain attention, clapping hands in a rhythmic fashion, and the 'hands on head' technique. While the repertoire grew with additional practicums, there was a growing belief that 'you really have to develop your own methods ... the classroom teacher tells you to try their ideas but if you don't feel comfortable with them the children can always pick it.' Such a belief has implications for teacher education, as while there may be some flexibility of adoption according to preference, the strategies taught (the schedules of reinforcement, the types of punishment, shaping, extinction, the Premack principle, etc) have universal application.

One slight trend over the two years was that towards being less critical of the cooperating teacher's management strategies. In the first year, several students were critical, claiming a discrepancy between what they'd been taught and what they observed. Such a trend might be explained by the growing awareness of the realities of teaching.

While some students claimed victories in time with management, others still acknowledged the problem:

'My discipline doesn't seem to work well ... the kids just keep on talking and I can't think of what to do.'

Comments like this indicate that if Fuller's (1969) developmental conceptualisation of concerns about self, task and impact is valid, then the rates of progression, as might be anticipated, vary for different students. An alternative interpretation is that such comments

provide support for McCormack's 1996 study in which concerns about self remained stable, even while concerns about task and impact decreased.

One student provides a typical account of the pain of discovery:

'Every child has some way you can get to them ... you have to keep working to find out what is successful with that particular child.'

The previously reported belief of students that the management process cannot be reduced to a set of clearcut strategies, is highlighted by the variety of scenarios they present for which clearcut solutions are problematic. Take the following for example:

'There was this kid with real behaviour and emotional problems, and one day he climbed out onto the cement verandah rails and said he was going to jump. He was in third class and always talking about death ... he just kept going further out. I was really scared.

So what did you do?

I just called for someone else to come ... that's what you're supposed to do ... not be alone with the kid ... anyway we both tried to convince him to come down ... lots of positive stuff like "we really like having you in our class" and stuff like that. That's when the principal came ... they all carry mobile phones in case the kids lose it ... it's quite sad ... he could be really good sometimes. I took him on an excursion and he really loved it ... he was an angel ... but at other times ... well nothing really prepares you for that.'

The student who had this experience happened to be a member of the March 98 Focus Group. She added: "The Uni does its best...the subjects really did help."

3. Lesson planning

From the first practicum experience, lesson planning was considered fundamental, and that belief has either remained unchanged or grown. In the first year, there were three 'dissenters.' Two of them regarded lesson notes as 'loose guidelines' for what should transpire, and one claimed not to value them as the school staff did not write them. By the second year, there were no dissenters.

Such a belief of 'be prepared or it will be a disaster' was commonly informed by 'unfortunate' experience in the first couple of practicums:

'There was this one lesson I did. I thought I had everything ready ... overheads, sheets and stuff. I needed dice and just thought they would be in the class. The teacher said I had to get them from somewhere else. ... the whole lesson was stuffed ... that's what I mean ... you've got to check and double check.'

'I did a kinder (ie. kindergarten) lesson and didn't have enough stencils ... it was a disaster so now I'm always prepared.'

Apart from actual teaching practice informing the need for planning, students acknowledged the contribution of the program in providing the appropriate theoretical rigour:

'The uni seems to push student lesson plans quite a lot. I can't speak for all in the field ... they used a day book ... I found the lesson plans quite good to give you ideas of what you do and whether it is designed in a successful way.'

The program reported provided students with a generic lesson plan format and train them in its use. Tertiary advisers subsequently insist on its use in schools. This policy may explain why students rated their improvement and proficiency in planning higher than any other item relating to teaching at the end of the second year. However what might be called a reflective perspective on lesson planning emerged at the March, 1998 Focus Group discussion. While not denying the importance of being very well prepared, some students suggested that lesson plans could be cut down to about half a page. This suggestion could be signalling students' confidence in their developing personal practical knowledge (Clandinin, 1986)

4. Practicum assignments

Teacher education institutions face a number of problems in the timing of student assignments. First there is the problem that in a two semester per year system, each semester may typically be of 14 or 15 weeks duration. If the practicum is a 'block' practice of three weeks within that 14 or 15 week period, it is difficult to free students from working on academic assessment commitments during the practicum.

The second problem is more vexed. In a deliberate attempt to inform theory and practice, many lecturers set assignments involving students in the collecting of data in the schools during the practicum. At UTS, an academic sequence of subjects, Practicum 1-6, parallels the respective field-based experiences, and lecturers feel it eminently worthwhile to create assignments that link the theoretical content to actual school/classroom practice.

While such a policy may have prima facie value, the students expressed another interpretation, which seemed to reflect an increasing concern beyond the first year. The following comments were expressed at the end of the second year:

'It's really hard with assignments over prac ... you want to be focussed, but you just can't.

'All the pressure of assignments meant you couldn't really be effective in the classroom'

'All the assignments over prac. Gave prac. A negative feel. Doing a full day's prac. and then driving for three hours and then having to do assignments ... it ruined prac.'

In the March 1998 Focus Group discussion, it became more apparent that students thought the assignments associated with the Practicum subjects were worthwhile, but that they queried the value of some assignments associated with their other subjects. They also drew attention to the role of the class teacher in facilitating or constraining the ease of carrying out university assignments. Class teachers who were flexible and cooperative encouraged students to make practice-theory links through assignments but class teachers who were inflexible were perceived by students as not assisting them to make the links.

There would seem to be a need to achieve a more appropriate balance between theory and practice in the assessment of students, at least in relation to the use of schools and their staff as data sources. The rationalisation of student assessment remains difficult given the typical pattern of students taking five to eight subjects at any given time with each requiring formal assessment. Yearlong rather than semester-long subjects provide further flexibility in the timing of assessment.

We certainly need to be mindful of the problems of over-assessing, lest the desirable practice/theory nexus we seek, is strangled by our very zeal to achieve it.

5. Assessment and Evaluation

Assessing and evaluating students was the area about which students felt most uncomfortable by the end of the second year, and furthermore they seemed to display little theoretical or practical knowledge about ways of assessing children's learning.

In the first year, students often expressed surprise at the range of individual differences in a class, and while they acknowledged learning in relation to assessing, provided few details. Perhaps these initial learnings were not consolidated, for by the end of the second year, the following comments were typical:

'I've done checklists, but you don't really assess kinder (ie. kindergarten) children.'

'I get really confused ... I don't really know the difference between monitoring, assessment and evaluation.'

'This is one of my weaknesses. I tend to want to go on with the next lesson rather than think about what the children have learnt.'

Of greater concern to the researchers were the comments:

'I don't really know what you mean by assessing.'

'We've only just started thinking about assessment ... we haven't done much yet.'

'We haven't really covered assessment yet.'

A first reaction is to argue the implausibility of assessment not having been covered with some degree of thoroughness in the first two years of the program. However the weight of student comment either suggests otherwise or strongly suggests that lecturers need to be more specific when they are dealing with issues of how to assess children's learning. The researchers believe that such a problem with the theory/practice nexus in relation to assessment may not institution-specific, and may be explained by our traditional concentration on the content and methods of teaching, and more recently on the outcomes. Assessment/evaluation has traditionally been the most meagerly covered of the four curriculum elements. The recent importance given to assessment within an outcomes framework in schools and teacher education institutions, (for example, portfolio assessment) should enhance the theory/practice relationship.

6. Relationships with teachers

Findings from the first year of this study led us to infer that the relationship between theory and practice may be facilitated by the quality of the relationship between the campus-based and field-based components of the teacher education program, where this relationship is strong. The theory/practice relationship may also be facilitated when both teacher educator and the school-based teacher educator (the cooperating teacher to whom the student teacher is assigned) both work for the benefit of the student teacher.

There was no discernible change in student perceptions over the practicums. Teachers were predominantly praised for being helpful and providing quality supervision. One student's comment, 'I learnt a lot more from the teacher in the field ... it's hands on ... uni. goes on with a lot of bull...', was not typical of the perception of the relative contributions of school and university.

A significant minority of students were critical of teachers. One criticism related to the lack of time and support provided. Another related to the teacher's treatment of children. The following are typical:

'I saw a lot of things I didn't agree with ... bad children being sent to a support desk outside where they would spend hours and become more naughty ... a catch 22'

'You sort of have to do what the teacher wants ... we learn all these discipline strategies ... but the teacher just yells ... kids settle down ...yells ... settle down ... I don't like to yell but that's what you have to do to get attention.'

As one student claimed, 'rapport with the teacher is really important.' Only with a satisfactory rapport can students satisfactorily implement theory in practice, and obtain feedback to improve the process. Any attempt by teacher education institutions to identify and solicit exemplary teachers for students is potential dynamite, and will invariably fail, as identifying appropriate teacher models is ultimately dependent on school principals.

7. Role of the tertiary adviser

The role of the tertiary adviser has been a source of contention in NSW since lecturers stopped writing student reports in the 1980s. Perceiving their role as one of support only, many lecturers characterise their role as one of 'trouble shooting' and/or public relations in the school. Beyond the single visit, this role can be substantially exercised over the telephone. Other lecturers believe that such support should be supplemented by observing lessons and providing formal feedback. Greater work accountabilities and massively increased supervision loads brought about by staff attrition have diminished the involvement of even the most zealous tertiary advisers.

Despite the typical student anxiety present when the tertiary adviser visits, the students at all stages of their program, believed that the tertiary adviser should have a more significant role. The following comments were not atypical:

'I only saw the adviser once over prac. and then he didn't have time to talk to me'

'I didn't even speak to my tertiary adviser'

While this is an educational problem with industrial implications, the researchers believe that the theory/practice nexus is best achieved when student, teacher and lecturer are dynamically engaged in dialogue. Part of that dialogue must involve the student and lecturer in a shared evaluation of the student's teaching. Gaffey and Dobbins (1996) have recently articulated criteria for successful partnership programs in which learning outcomes for student teachers are maximised. They advocate a whole-school partnership program, in which school and university personnel are equally involved, so that student teachers, rather than being confined with a single teacher in a single classroom can experience the multi-faceted nature of a teacher's role.

8. October, 1998 Data Collection

Preliminary results of the October 1998 data collection will be presented via overheads. Twenty-four of the original cohort of students were interviewed by the same person as in 1996 and 1997. Additionally all third year students completed a questionnaire designed to repeat some of the questions given to the sample in 1996 and to gain data on their perceptions of competence as a teacher after three years of teacher education.

Conclusion

While this study reported on the link between theory and practice in one teacher education program, and as perceived by one cohort of students over a three year period, the researchers believe that the predominantly raised themes and findings are typical of those in most teacher education institutions with similar structures to UTS. The need for thorough planning and effective management, achieved through the integration of theory and practice, are perennial concerns, with the latter posing more persistent problems. The perceived inadequacy of knowledge relating to assessment is arguably a more recent problem accentuated by the advent of an outcomes framework.

Ensuring that students achieve the appropriate integration of theory and practice is the concern of key personnel as well as the program content. The cooperating teacher and the tertiary adviser need to be in dynamic interaction with the student in field-based situations.

One concomitant of the greater accountability of teaching at the local, state and national levels, is the greater accountability of teacher education programs to provide meaningful professional education. Just as schools now operate within an outcomes framework, so teacher education may become subject to national standards and guidelines (Australian Council of Deans of Education, 1998) which outline "attributes which are necessary for beginning teaching and a potentially successful teaching career..." (p. 9).

Such attributes explicitly involve the ability to teach, and therefore implicitly involve the ability to apply theory in practice.

Acknowledgments

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Student-centered learning, also known as learner-centered education, broadly encompasses methods of teaching that shift the focus of instruction from the teacher to the student. In original usage, student-centered learning aims to develop learner autonomy and independence by putting responsibility for the learning path in the hands of students by imparting them with skills and basis on how to learn a specific subject and schemata required to measure up to the specific performance requirement. Student Students' perceptions about assessment. The repertoire of assessment methods in use in higher education has expanded considerably in recent years. New assessment methods are developed and implemented in higher education, for example: self and peer assessment, portfolio assessment, simulations, and OverAll assessment. Â In this part of the review, the literature and research on students' perceptions about assessment are reviewed. The relation between and impact of (perceived) characteristics about assessment on students' approaches to learning and vice versa, are examined and discussed. Â 'Figuring out the teacher' enables them to tailor study strategies that fit the task.