Teacher-learners' conceptions of learning: Evidence of a "communalist" conception amongst postgraduate learners?

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Abstract.
Recently, research on mature students' approaches to learning, conducted within a students'-experiences-of-learning framework, has suggested that these students tend towards being deep-level learners. The studies reported in this paper were focused on the self-reported conceptions of learning of a group of mature students enrolled in a postgraduate degree course. A primary aim of these studies was to assess the extent to which these students reported "sophisticated" conceptions of learning, as might be expected from mature, postgraduate learners. A secondary focus was to assess the extent to which academic context might be said to have influenced learning conceptions over time. The studies suggest that, for this sample of students, quantitative conceptions appear to predominate. In addition, a conception of learning that does not appear to "fit" within the conceptual model used to assess these conceptions is presented and discussed. Empirical data suggesting the stability of these learning conceptions over time is discussed in the light of its implications for teaching on postgraduate degree programmes where students appear to hold quantitative conceptions of learning. But the paper also argues for the need for further research into a conception which holds that learning is a moral obligation or service to a community.

Theoretical background to the studies

The description and classification of students' and teachers' self-reported conceptions of learning and teaching has attracted a great deal of research interest, especially in the past four years. Central to the increase in published research in this field seems to be the publication of the work of Marton, Dall'Alba and Beaty's (1993). Utilising a phenomenographic research methodology, Marton, Dall'Alba and Beaty's (1993) study of students' conceptions of learning replicated and extended earlier work of Säljö (1979) and Van Rossum and Schenka o (1984). The Säljö (1979) study had identified and classified five qualitatively distinctive conceptions of what students thought learning is. Furthermore, Säljö (1979) had argued that these categories of conception could be seen as "hierarchical", in the sense that more sophisticated conceptions were those which contained and extended those at the "lower" end of the hierarchy. At the base of this hierarchy were those categories which primarily depicted learning as being concerned with a quantitative increase in knowledge and procedures.

In terms of this classification procedure, more sophisticated conceptions, by contrast, were those which suggested that learning involved a qualitative or transformative change in understanding of phenomena, or "seeing" things differently.

An interview study of first and second year university students conducted by Van Rossum, Deijkers and Hamers (1985) produced essentially similar results to Säljö's study of conceptions of learning, but, in addition, was able to highlight some of the complex inter-relationships between students' learning conceptions, their perceptions of what constitutes "good" teaching, their views on forms of assessment and the meanings they attach to the term understanding". The Van Rossum, Deijkers and Hamers (1985) study contributed two significant insights to the current debate about learning and teaching conceptions, viz. (1) it presaged the notion argued by Marton, Dall'Alba and Beaty (1993) that the acquisition of a learning conception is developmental, and (2) it suggested that this conception can be influenced by academic and other contextual factors.

The Marton, Dall'Alba and Beaty (1993) study added a sixth qualitatively distinctive category of conception to the "hierarchy" established by Säljö (1979): learning as changing as a person. Furthermore, Marton, Dall'Alba and Beaty (1993) argued this sixth conception to be the most sophisticated hierarchically. The longitudinal data collected in this study demonstrated powerfully the notion that learning conceptions were developmental over time and experience. It must, however, be noted that this study was focused on students' philosophical beliefs about learning in a broad sense rather than on their learning in specific academic and other contexts. This point is indeed made by these authors in the concluding comments of their study, and, in addition, by Boulton-Lewis (1994) in her study of tertiary students' understandings of their own learning.

Around the time of, and subsequent to, the publication of the Marton, Dall'Alba and Beaty (1993) study, studies of students' and teachers' conceptions of learning and teaching, from within different research frameworks, have been regularly reported in the research literature on student learning in higher education. Thus, for example, research studies of relevance to the study described further on in this paper have pointed to associations between academic teachers' context-dependent conceptions of teaching and the quality of student learning (Samuelowicz & Bain 1992; Gow & Kember 1993; Kember & Gow 1994). Other research studies have confirmed associations between student epistemologies (Perry 1970, 1988) and different approaches to course design (Sheppard & Gilbert 1991). In this discussion, epistemology is linked to the notion of learning conception. It refers to the way students conceive of learning, and how this conception is linked to their understandings of how discipline-specific knowledge is arrived at, substantiated, structured and contested.

In essence, the above and other studies have pointed to the fact that identifying and classifying learners' conceptions of learning is a valid activity insofar as these qualitatively distinct conceptions can be shown to be learning context-sensitive and associated with qualitatively different learning outcomes. Thus far, reported research in this field has demonstrated the developmental nature of these conceptions (for example, Marton, Dall'Alba & Beaty 1993). In addition, it has shown that the more complex these conceptions are, the more likely it is that they are associated with more sophisticated reasons for study and study strategies (for example, Boulton-Lewis 1994).

Of further interest in the present discussion of learning conceptions has been a focus in the past five years on the extent to which research understandings of these learning conceptions could be said to have been illuminated by investigations of a cross-cultural nature. These investigations have stemmed, at least in part, from apparently paradoxical findings that groups of Asian learners achieve excellent academic results despite appearing to adopt rote-learning approaches to their learning. Attempts to resolve this apparent paradox have lead to a number of recent studies which have focused on investigating phenomena such as learning conception and learning approach amongst samples of "non-Western" learners (Watkins & Regmi 1990; Pratt 1992; Marton, Dall'Alba & Tse 1992; Marton, Watkins & Tang 1995).

These studies have lead to research emphases which argue that understanding the phenomenon of learning conception might be better served if its interpretation takes account of cultural nuances in meanings which learners attribute to this phenomenon. Perhaps more importantly, these studies have highlighted the need for caution amongst "Western" researchers in developing models which purport to explain variation in learning conception, and the meaning of the phenomenon, amongst "non-Western" learners, and seek to describe certain beliefs about learning as hierarchically "superior" to others. Thus, for example, the notion that memorisation appears to be an impoverished, mechanical process of rote-learning, may not hold true for groups of Asian students for whom memorisation is at times associated with meaning-making and developing understanding (Marton, Dall'Alba & Tse 1992; Marton, Watkins & Tang 1995).

A study by Purdie, Hattie & Douglas (1996) has further underlined the need for caution in developing models of self-reported learning conception, based on studies amongst "Western, individualist" learners, which are then applied to "Eastern, communalist" groups of learners. These authors' comparative study of Japanese and Australian students' learning conceptions, learning strategies and self-regulated control over this learning, emphasises this point.

Japanese students' learning processes appear, at least partly, to be regulated by a belief amongst others that learning is a social obligation to one's community. This is significant in suggesting that what learners report as a conception of learning could to some degree depend upon whether the phenomenon of learning is viewed by these learners as an "individualist" or "communalist" endeavour.

The Purdie, Hattie & Douglas (1996) study provides an important framework to the studies described in this paper, but with one important difference in being focused on secondary school-students as opposed to tertiary students, as is the case in this paper. In significant numbers, the research samples for the studies described further on in this paper could be said to be "non-Western", in that they appear to share with Asian learners similar views on learning being a "communalist" endeavour.

To date, research on conceptions of learning has not focused explicitly on whether these conceptions of learning can, in fact, be altered by teaching and learning processes in everyday academic contexts, or, if this is the case, to what these changes in conception can be linked. One of the aims of the second study outlined below was to investigate static and dynamic aspects of learning conception in an attempt to address the extent to which these conceptions might be said to be "fixed" (or not) in a particular academic context.

Of additional interest to this author in conducting the studies described below, was a focus on postgraduate students. Much reported research has been focused on undergraduate students or on adult learners in training contexts. In fact, there has been very little reported research, within a students'-experiences-of-learning framework, focused on mature students (Richardson 1994). The present studies were conducted, therefore, to investigate similarities and possible differences in conceptions of learning between previously studied groups of learners and a postgraduate sample of mature students. Many of the students who formed part of the study samples came from school and undergraduate academic backgrounds which have been characterised as less than ideal and, with an emphasis on rote-learning approaches, likely to promote predominantly quantitative conceptions of learning. Surveying the learning conceptions of these students, therefore, provided an opportunity to determine the extent to which quantitative learning conceptions do, in fact, predominate.

The context of the studies

Students who formed the samples for the studies were enrolled on a postgraduate Education degree programme of the School of Education at the University of

Cape Town. What made the context of these studies particularly interesting, therefore, was that these students were in the unique position of also being educational practitioners in their own right. An exploration of these students' conceptions of learning thus simultaneously became an exploration of teachers' conceptions of this phenomenon.

The demographic features of the sample student population showed that 65% (n = 78) of the students either spoke English as a Second Language, or were from rural home and teaching backgrounds, or were transferring students (in the sense that they did not complete first degrees at this university), or were characterised by two or all three of these background features. Whilst these demographic features represented interesting shifts in tertiary enrolments on a particular degree programme at the University of Cape Town, they were not without their challenges. Many of these students came from secondary school backgrounds which had failed to prepare them to meet the demands of higher education in a context such as that found at this university.

Evidence of the unsatisfactory conditions in secondary schools from which many of these students hail, has been extensively documented elsewhere (see, for example, Hartshorne 1990), and is not repeated here in any detail. In essence, the key features of these unsatisfactory conditions are (1) inadequate provisioning of basic resources, such as classrooms and textbooks; (2) un- or under-qualified teaching staff, and (3) frequent political disturbances, such as riots, boycotts and other kinds of mass action. In addition, many of these students also completed undergraduate degrees at what have, in South Africa, come to be called "historically black universities", many of which are characterised by under-resourcing or interruption of learning and teaching. For example, these universities (1) often lack physical resources of the kinds available at some of the longer-established South African universities, e.g. Witwatersrand, Rhodes, Natal; and (2) have been flashpoints of political conflicts which have seriously disrupted everyday academic processes on numerous occasions.

It is not the purpose of this paper to give a detailed analysis of the effects of these and other factors. What is important for the argument of this paper, and for the study investigation described, is that students enrolled on postgraduate degree programmes, and who come from academic and personal backgrounds of the kinds outlined above, experience a number of language and adjustment transition difficulties which may exacerbate academic difficulties they experience in the "normal" course of their studies. Anecdotally, it is commonly assumed amongst educationists that these students' learning approaches are characterised by emphases on rote-learning patterns, minimalist and sterile engagement with course material, and a tendency towards quantitative

conceptions of learning. It was precisely in an attempt to test aspects of these anecdotal assumptions that the study described in this paper was carried out.

Put differently, the tentative hypothesis posited by Richardson (1994) – that mature learners tend towards a "deep approach" to learning, that they have a "rich" background of educational experience and that they are intrinsically motivated – might be found to be somewhat inappropriate for this cohort of students and possibly for previous and successive cohorts. If the anecdotal assumptions about these students' learning approaches, perceptions and conceptions can be shown to be accurate, then the hypothesis that mature students show a tendency towards the adoption of deep approaches and meaning orientations might require modification.

Aims of the studies

The central aim of the first study was to attempt to describe these students' conceptions of learning, i.e. to explore what these students understood by the term "learning". Linked to this aim was an attempt to categorise these conceptions against the framework of Säljö's (1979) hierarchical model of learning conceptions, extended by Marton, Dall'Alba and Beaty (1993).

The primary aim of the second study was to investigate whether these conceptions of learning underwent any changes during the course of the academic year for which students were registered.

The first study

Method

The first study was conducted during 1994, as an investigation which was qualitative in nature. The sole purpose of this first study was to investigate the extent to which the range of qualitative variation described in the Marton, Dall'Alba and Beaty model (1993) would be found amongst a subgroup of postgraduate mature students.

Students' self-reports of their conceptions of learning were obtained by requesting them to respond in written form to two open-ended questions:

"What is learning?"; and

"How do you know that learning has occurred?"

The task was administered in the context of a timetabled class on "Measurement and Evaluation in Education" which was co-ordinated by this author.

Of the 35 students who were enrolled on this course, 34 could be described as having academic and personal backgrounds which are of the kind described in the "Context" section of this paper. The students were told that research was being conducted into what teachers understood by the notion of learning. These students were advised that international research studies in this field were beginning to demonstrate the significance of such studies for learning and teaching in many different educational contexts.

The students were, furthermore, told that they could respond to the pen-ended question anonymously, but, that if they wished to discuss their responses to both questions with this author, they would need to identify themselves on their response sheets. They were also invited to discuss the research, and their individual views of learning, with this author at a subsequent individual interview, by mutual arrangement. Students were told that the open-ended question would be discussed during class-time, in the context of normal class discussions in this course on "measuring" educational phenomena.

Data analysis

Data from the first study (n = 35 students) was analysed by two researchers trained in using phenomenographic methods for patterning and categorising open-ended response data. Not surprisingly, student comments showed evidence of more than one conception of learning. This is essentially a similar finding to that of the work of Boulton-Lewis (1994) and Boulton-Lewis, Wilss and Mutch (1996), who used Biggs' SOLO Taxonomy (Biggs and Collis 1982) to classify students' views of learning in terms of their increasing structural complexity.

Written responses to the open-ended question "What is learning?" give evidence of each of the six conceptions of learning, reported by Marton, Dall'Alba and Beaty (1993). Examples follow:

> Conception 1/2 (Learning is the acquisition of knowledge and the reproduction of this knowledge for utilitarian purposes):
>
> > "Learning is a process by which humans ::: acquire knowledge"
> > "Learning is a process of absorbing knowledge for life"
> > "Learning is a process which takes place when more than one person is involved ::: the teacher is there to give instructions to the student
> > "Learning is achieving understanding of instructions that are exposed to you"

Conception 3 (Learning is the application of knowledge or procedures):

> "…during learning … knowledge is rearanged (sic) so as to be useful …"

Conception 4 (Learning is deriving meaning from experiences):

> "Learning is … experiencing something never experienced before in a way of giving it new meaning …"
> "Learning [occurs when] a person engages in a relationship with material or a situation ::: which produces new knowledge, a reaffirmation of previously learnt knowledge or a refinement of previous knowledge"

Conception 5 (Learning is an interpretive process aimed at understanding reality):

> "[Learning is] acquir[ing] new information/facts/knowledge; developing cognitive skills…coping with contradictory facts and forming an opinion…"

Conception 6 (Learning is changing as a person):

> "Learning involves the opening up of new horizons; the broadening of one's sphere of knowledge ::: the ennoblement of the human character".

The most frequently occurring stated conception of learning, however, was the "learning as the acquisition of knowledge" conception (n = 28 students included this category of comment in their responses). The "learning as the acquisition of useful skills" conception (conception 3) was observed in 7 written responses. Conceptions 4 and 5 ("learning as the derivation of meaning" and "learning as being aimed at the understanding of reality") were observed in 3 or fewer cases, whilst conception 6 ("learning as changing as a person") was noted in only one response.

The qualitative data, however, seemed to be suggesting a conception of learning that could not be accounted for, or subsumed under, any of the six existing categories of conception, viz. a "learning as a moral obligation to God (or some authority figure or a community)" conception. This particular conception was noted in 7 of the 35 responses collected. It was variously expressed as:

> "When we learn we get to know…what is good and bad and also what is good specifically for us", or

"Being accountable to the knowledge one acquired by word of mouth, writing, or 'living' it", or

"It is God's will that learning should take place".

The finding of a social/moral obligation conception of learning is, in this author's view, not surprising given that students who formed the study sample came from cultural backgrounds which, as has previously been asserted, are anecdotally regarded as "communalist". This finding is consistent with that of Pratt (1992) and Purdie, Hattie and Douglas (1996) in separate studies employing qualitative and quantitative methodologies respectively, and with different cultural groups (Chinese and Japanese) than the one which formed the sample for this study. The extent to which evidence for the incidence of this social/moral obligation conception could be sustained in further studies of teacher-learners was a major reason for the second study reported in this paper.

The second study

Method

At the commencement of the 1995 academic year, first-time registering postgraduate Education students were asked to complete a first version of an Inventory of Conceptions of Learning (currently being developed by Meyer and Boulton-Lewis, 1997). A full description of the structure, scales and psychometric properties of the Inventory, as it has thus far been developed, is given in Meyer (1995), and is not repeated here. In essence, the Inventory consists of a series of statements based on interview data reported in Marton, Dall'Alba and Beaty (1993), augmented by statements from interviews with learners in other contexts, about what learning might be considered to be. The Inventory consists of ten notional sub-scales, four of which can be said to equate with a quantitative conception of learning. The other six sub-scales are characteristic of a qualitative conception of learning. Subsequent development of the Inventory, now termed the Reflections on Learning Inventory (RoLI), has lead to the incorporation of a "learning as a duty" dimension. This dimension is substantively drawn from insights gleaned from the Purdie, Hattie and Douglas (1996) study.

A "learning as a moral obligation or service to the community" conception, developed by this author on the basis of student responses in the first study, was operationalised and added as an eleventh sub-scale to the Inventory (first version) at the second administration. Table 1 below presents the 10 items which were added to the Inventory as example statements conceptually

capturing the essence of the "learning as a moral obligation or service" conception. Of this conception, more will be said in the "Analysis" section of this paper.

Table 1. Sample items operationalising the "learning as a moral obligation or service to the community" conception (included in the Conceptions of Learning Inventory)

Item Number	Item Statement
Y71	Learning means that you must be accountable for that knowledge
Y72	Learning helps you to be of service to others
Y73	When we learn we get to know about good and bad and what is specifically good for us
Y74	Learning enables you to give something back to your community
Y75	Learning means you can utilise bodies of knowledge for the benefit of yourself and others
Y76	Learning is God's will for us
Y77	Learning means being able to fulfil a duty to the lecturer
Y78	When one has learned something, one is able to help others
Y79	Engaging in learning is an obligation which is expected of us by God
Y80	Learning means being able to please the lecturer

Students were asked to respond to each item on the Inventory on a 5-point, Likert-type scale, indicating the extent to which they agreed or disagreed with each statement. In all, 56 first-time entering students completed the Inventory during Orientation Week of the Education programme. They were told that the programme lecturers were committed to quality teaching and learning, and that, as part of this commitment, it would be helpful to these lecturers if they had some sense of the prior experiences of learning of the students. Students were thus requested to respond to the Inventory in a general sense, in terms of their developed understandings of learning, through a retrospective consideration of their studies hitherto. They were asked to put their names on the Inventory responses, so that if individual students sought academic assistance at some point in the year, information about their previous learning experiences could be usefully available to both staff and students.

The Inventory was administered a second time during 1995, in time-tabled teaching time, to the same subgroup of postgraduate Education students (n = 56) as on the first occasion. On this second occasion, at the mid-point of the academic year, students were asked to reflect on their experiences of learning on this particular programme. In other respects, the Inventory administration was conducted in the kind of positive spirit, and in a similar manner, to that which had prevailed on the first occasion.

Data analysis

A principal (oblique) factor analysis, using squared multiple correlations as communality estimates, was carried out in respect of the 10 items operationalising the "learning as a moral obligation or service to the community" construct. Two factors were indicated by eigenvalues of greater than 1 (first three eigenvalues: 4.17; 1.29 and 0.64). These two factors were positively correlated, with a Pearson correlation coefficient of r = 0.35. Table 2 below provides details of the factor analysis pattern.

Table 2. Principal factor analysis of the items of the "learning as a moral obligation or service to the community" subscale

	FACTOR 1	FACTOR 2
Y74	86	–
Y72	74	–
Y75	72	–
Y78	67	–
Y73	63	–
Y71	53	–
Y80	–	73
Y77	–	72
Y76	36	48
Y79	37	41

NOTE: Y71–Y80 refer to item statements of the Inventory subscale (given in Table 1).

Factor 1 essentially appears to isolate items of the posited subscale which are concerned with learning being seen as a duty or service to a community, while factor 2 isolates items concerned with learners' perceived duty to a lecturer. Items concerned with learning as a duty to God appear to load on both factors. The factor pattern appears to support a distinction for this data set between learning being seen as a duty to a community and learning as a duty to lecturer. Conceptually, this distinction appears plausible as it separates items of the subscale which distinguish between an internal and an external locus of control in the learner. The wording of the item statements loading on factor 1 suggests that the learner believes himself to be in control of this particular obligation. Factor 2 item loadings support a belief that the learner is controlled by an external agent, viz. an authority figure.

A second factor analysis was carried out after the two items concerned with learning being a duty to an authority figure had been deleted (as items associated with factor 2 loadings in Table 2). This analysis suggested an indication of one factor (first two eigenvalues: 3.96 and 0.80), with

corresponding value of alpha of 0.87. The overall conceptual coherence of 8/10 items of the sub-scale capturing the "learning as a moral obligation or service to the community" conception appeared to be further sustained by an item-level correlation analysis, with items Y71, Y76 and Y79 less strongly correlated with the total than the others. The alpha values for the correlation analysis, nevertheless, suggest grounds for cautious optimism that this conception of learning is measurable, and that inter-item coherence for this particular sub-scale is supported.

Further exploration of the items of this subscale in subsequent quantitative investigations of self-reported learning conception would, nevertheless, seem to be indicated by the data in Table 2 and by subsequent analyses carried out by this author and referred to in the preceding paragraph. Details of these subsequent analyses are available from the author. It is possible that the three items relating to learning as a duty to some supreme being (items Y71, 76 and 79) may constitute a separate factor from the remaining items relating to learning as a duty to a community.

A maximum likelihood factor analytic solution of the responses on the first administration of the Inventory showed that two factors were indicated by eigenvalues greater than 1 (first three eigenvalues: 16.01; 3.58 and 0.54 respectively). This solution is not presented here, but is available from this author.

Table 3. Promax rotation factor pattern – first Inventory administration

	FACTOR 1	FACTOR 2
SD	89	–
TS	87	–
CP	82	–
US	80	–
AP	79	–
AW	64	–
AK	51	44
FU	–	82
QA	–	77
CF	–	75

NOTE: Key to symbols: SD = Learning as seeing things differently; TS Learning as involving transformation; CP = Changing as a person; US = Learning as understanding; AP = Application; AW = Awareness; V1 = Learning as an obligation or service; AK = Accumulating knowledge; FU = Future use; QA = Quantitative conception; CF = Collecting facts.

Table 3 indicates this two-factor solution by Promax rotation (with a correlation for the two factors of r = +0.49). Factor 1 essentially isolates those sub-scales associated with learning as a qualitative change in perception, while factor 2 is associated with learning as a quantitative increase in amounts of knowledge. Of interest, though, is the loading on both factors of a learning as the accumulation of knowledge conception. Conceptually in terms of the model of learning conception used, this is surprising. Further exploration, through interview follow-up, would seem to be indicated in order to tease out the extent to which these students perceive the accumulation of knowledge as a quantitative, "more-of-the-same" procedure, and/or as being associated with a qualitative change in understanding.

Table 4. Promax rotation factor pattern – second Inventory administration

	FACTOR 1	FACTOR 2
SD	92	–
TS	86	–
CP	82	–
US	80	–
AP	80	–
AW	66	–
V1	62	27
AK	52	44
FU	–	80
QA	–	79
CF	–	76

NOTE : Construct V1 refers to the "learning as a moral obligation or service to the community" subscale.

Table 4 gives the factor loadings in respect of responses on the second administration of the Inventory. On this occasion, the Inventory included items of a sub-scale operationalising a "learning as a moral obligation or service to the community" conception. This conception is given as V1 in the Table. Again here, as in the case of the maximum likelihood factor analysis for the first Inventory administration, two factors were indicated by eigenvalues of greater than 1 (first three eigenvalues: 17.62; 3.49; 0.59 respectively). This two-factor solution, by Promax rotation, is reflected in Table 4. The correlation coefficient for the two factors was r = +0.51. The maximum likelihood solution is, again, not presented, but is available from this author.

Factor loadings for this Table appear to be essentially similar, in terms of the distinction between qualitative and quantitative conceptions of learning, as was the case in Table 3 above. The loading of an "accumulating knowledge"

learning conception with other transformative conceptions remains of interest. In this particular academic context students' dependence upon collecting information in courses appears to be a stable belief, as is the association between collecting information and developing "more sophisticated" beliefs about learning. The loading of construct V1 on both factors also seems worthy of further research attention. The empirical association of the "learning as a moral obligation or service" conception with other transformative conceptions, for instance, seems theoretically plausible if, as has been asserted earlier, this belief is associated with individual learners' assuming personal control over the learning behaviour. It may suggest that learning as an obligation or service is connected to changing as a person. Evidence that this conception is associated with quantitative conceptions of learning, however, is of also interest in that it may be suggesting that learning as an obligation or service also involves accumulating knowledge to be of such service.

Discussion

These two studies have provided initial evidence of at least one conception of learning amongst postgraduate learners which does not appear to be described in present models depicting self-reported learning conception (Säljö1979; Van Rossum & Schenck 1984; Marton, Dall'Alba & Beaty 1993). This and other conceptions of learning are beginning to be reported in the research literature (for example, Purdie, Hattie and Douglas 1996). This is particularly so where the phenomenon of learning conception is investigated in cross-cultural contexts and within an approach where this construct is perceived by learners themselves as "communalist" rather than "individualist". As such, the studies reported in this paper, and other studies, contribute to a widening understanding of the existence of further categorisations of qualitatively distinct learning conceptions. What the studies in this paper add to the discussion, however, is their focus on postgraduate students. In this sense, they are aligned with studies such as that of Kiley and Meyer (1996) in reporting differences in learning beliefs, motivations and approaches amongst learners who continue formal studies at tertiary institutions which were not their undergraduate places of study.

The manifestation, amongst this group of postgraduate students/teachers, of a conception of learning as being a duty to some supreme being and/or to a learning community is, in the view of this author, significant. If it goes together with "pleasing the lecturer", then it carries interesting implications for the way in which the authority of lecturers teaching on this programme is perceived. Further research investigation of this phenomenon is called for,

both in terms of its implications for teaching, and for the way teachers teach pupils.

In terms of the quantitatively determined study data, it is of interest that a conception of learning being about a quantitative increase in amounts of information for a postgraduate learner is a source of variation at all. There is a widely held perception that South African secondary school students are strongly encouraged to acquire knowledge which can be reproduced in examination situations and that teachers support this process by passing on knowledge to these students in an uncritical manner. It would appear that these teachers are as reliant on knowledge acquisition when they are themselves learners at postgraduate level, a point made previously in a South African context by Craig (1991).

In addition, there is strong confirmatory emphasis in the qualitatively determined data of this conception. Further exploratory interviewing of the students who formed the sample of these studies (and others) would seem to be indicated, so as to shed more comprehensive light on the extent to which this conception is indeed integral to, and a stable feature of, teachers' understandings of learning. A question remains around the degree to which teachers holding this learning conception as a primary (or sole) conception could be expected to teach for uncritical knowledge acquisition in their students.

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