Education and Lifelong Development Research

Original article

Academic careers-an extreme case of continuous learning?

Ulrich Teichler®*

International Centre for Higher Education Research Kassel, University of Kassel, Kassel 34109, Germany

Keywords:

Adult higher education continuing higher education life-long learning academic careers academics' training and learning

Cited as:

Teichler, U. (2024). Academic careers-an extreme case of continuous learning? Education and Lifelong Development Research, 1(2), 51-57. https://doi.org/10.46690/elder.2024.02.01

Abstract:

Teaching and learning in higher education was characterized in the past in many countries by a "regular" pattern of study: A dominance of young students, a rapid completion of study, and an acquisition of competencies acquired in the course of study assumed to be more or less sufficient for the subsequent professional life-course, i.e. only in need of initial professional training as well as limited additional training and learning over the years. Since the 1960s, however, terms such as "adult higher education", "part-time study", "continuing higher education", "life-long learning", etc., spread indicating a growing role of new mixes of students' age, learning, and professional work. Analyses of the academic profession – their career paths and their self-understanding - suggest that they were hardly affected by these trends – notably because the traditionally close interaction of continuous learning and of academic work during the junior stages of the academic career did not call for corresponding changes. It remains to be analysed, however, whether the reduced power of professors in higher education institutions and the declining academic freedom due to the spread of various new governance, evaluation and assessment mechanisms indicate a growing pressure on the academic profession as well to reconsider and to re-learn in their professional life-course.

1. The move from "regular higher education" as the dominant model to one of the various models

Until the 1960s, a common view of the character of higher education was widespread: The major institution was called university, and in most economically advanced countries, a good university was in charge of research and teaching. Most students enrolled in university degree programmes immediately after the completion of secondary schooling, and most of them enhanced their competencies within a regular period of study up to a level, which could serve more or less as the basis for the all their subsequent professional life, i.e. only in need of of initial professional training as well as limited additional training and learning over the years. From the 1960s on, however, a rapid expansion, usually measured through the growing proportion of new entry students among the respective age group, was accompanied by the spread of the conviction that diversification of higher education institutions and diversity modes of studying were

the appropriate responses to this expansion. The terms "elite higher education", "mass higher education" and "universal higher education", coined by the U.S.-American higher education researcher Martin Trow (1970, 1974), gained widespread popularity. Diversification in terms of the structures and the functions of the higher education system became the focus of public discourse on higher education, later often called tertiary education, and played a key role in efforts to restructure the higher education systems in order to accommodate the rising number of students. Often, different types of institutions and different lengths of study programmes were implemented, and new mixes between the study period or periods of study, the life time and the professional work periods spread (see Teichler, 1988). The traditional model early enrolment in higher education, rapid completion of study, and subsequent professional work largely based on the competencies acquired in the course did not vanish, but now was seen as the "regular mode" among some others.

Many terms became popular describing the growing importance of "non-regular" mixes between life courses, study

Yandy Scientific Press

*Corresponding author. *E-mail address*: teichler@incher.uni-kassel.de (U. Teichler).

3006-9599 © The Author(s) 2024. Received April 25, 2024; revised May 20, 2024; accepted June 5, 2024; available online June 10, 2024. periods and activities as well as employment period and work activities: "Adult higher education", "part-time study", "dual education", "continuing higher education", "recurrent education", "life-long learning" etc. One might argue that the terms each underscored a certain aspect of change, but a widespread consensus never was reached both in the public discourse as well in higher education research about the most appropriate overall term and about the most important new model or models of links between learning and work along the traditional "regular" model.

But in spite of the variety of terms and of popular notions of the most frequent alternatives to the traditional "regular higher education" or to the traditional higher education which was "geared towards normal students" (see Teichler and Hanft, 2009), one notion seemed to have been generally assumed: That those young students, who eventually become academics, i.e. scholars professionally active within universities, continued mostly to study and work within the mode of "regular higher education". A more careful look both at the study and career paths of the majority of graduate job and at academic careers, however, might be appropriate: Do we also note modifications in the early life, learning and employment periods, before academics reach a stable position, and even in the work situation of senior academics, which are more similar to those of the other professions than generally assumed?

2. Changing role of higher education before, during and after study

In order to understand, whether the links between life course, learning in higher education and professional work of those pursuing an academic career are clearly distinct or more similar to the majority of students and graduates than generally assumed, a thorough look at the general situation is necessary. In the 1970s and the 1980s, enormous attention was paid to the increase of phenomena which are called above non-regular higher education (see the overviews in Abrahamsson, Rubenson and Slowey, 1988; Tight, 1996). It is worth noting that international organisations were strongly involved in discussing the changing individuals' options as well in promoting appropriate responses by higher education institutions. A publication of UNESCO (1976) on the "Development of Adult Education" and two studies of OECD on continuing education opting for the term "recurrent education" (CERI, 1973) and addressing both the changes in access to higher education and in renewed study after graduation under the term "Adults in Higher Education" (CERI, 1987) obviously turned out to be influential in shaping the public discourse.

When higher education researchers published for a first time an ambitious higher education encyclopedia in 1992 aimed at addressing the worldwide scene (Clark and Neave, 1992), the authors of corresponding articles could already draw from an impressive range of analyses, as the articles "participation of adults in higher education" (Stephens, 1992), "non-traditional students" (Hore, 1992), and "adult and continuing education" (Duke, 1992) show. During the 1990s and the first decade of the 21st century analyses followed which paid more attention to the interrelationships

of changes in learning before, during and after the regular study period, and efforts spread to provide "continuing higher education" (see the overview in Hanft and Knust, 2009): During that period, the comprehensive term "life-long learning", which had played already some role since the 1970s (cf. Williams, 1979), gained enormous popularity. For example, the International Academy of Education summarized the state of policy discourse and research discourse under this term (Tuijnman and Schuller, 1999; see also Teichler, 1999). The European Commission, which underscored the importance of these developments in various statements around 2000, even decided in 2007 to integrate their programmes for support of the intra-European mobility in school education, for vocational education and training, for higher education as well as for adult learning to a single umbrella scheme called "Life-Long Learning (LLL)".

Three alternatives of individual life and study courses and of higher education policies, different from the traditional "regular" model of schooling, early higher education, rapid study and consistent subsequent employment and work grew since the 1960. The first was increase of late access to higher education. Access to higher education later than at the normal age at completion of schooling needed to be admitted to higher education was not a completely unknown phenomenon in the past. In some countries, for example Germany, many pupils repeated classes, before they completed academic secondary education, i.e. the type of secondary education which provides the entry qualification to higher education. In other countries, for example Japan, many young persons, who did not pass the entry examinations to prestigious universities immediately after the completion of secondary education, decided to spend one or even more than one year to cram for repeated efforts to be admitted by the university of their choice. In various countries, young men were drafted to military service between completion of school and entry to higher education. In some countries, various young persons decided only after various years of vocational training and employment to find a way to higher education. In some countries as well, for example in Scandinavia, even many young persons opted for other activities after the completion of secondary education, before they eventually enrolled at higher education institutions.

The increased popularity of terms such as "adult higher education", however, reflects both - an increase of persons older than the traditionally regular new entrant students wishing to enrol as well as higher education policies to facilitate access and possibly to provide special programmes and educational approaches for these elder students: The willingness grew to provide a "second chance" for socially and educationally disadvantaged students or otherwise "non-traditional" students, for example those who had faced learning difficulties during the regular period of secondary education, but later improved. In some countries, former vocational schools, which had been upgraded to non-university higher education institutions in response to the increasing individual demand for higher education, continued to provide programmes for persons who had already been successful in middle-level occupations for some years. Higher education policies aimed at caring for adult students in a targeted way, however, varied enormously

by country: Higher education in some countries remained predominantly geared to the young students, while in other countries, for example Sweden, strong general support for "adult" students could be observed (see Abrahamson, 1986). One could also note that countries with a high degree of curricular regulation in higher education often a saw a need of offering special provisions for adult learners, whereas countries with relatively limited curricular regulations, for example Germany, assumed that the "adult students" could easily accommodate in the traditional programmes.

The second alternative was a longer period of study than the required period up to the degree (see Hore, 1992). The available analyses do not indicate the extent to which such a "prolongation of study" was already frequent traditionally or began to spread since the 1960s. Four causes for long periods of study are frequently named: Student earning money for living costs and eventual tuition fees spend lesser time on study, and thus, need more years up to successful completion of study. Also, some students facing difficulties of coping with the substance of study programmes need more years to reach the expected level of competencies at end of study. Further, some students like to be spend substantial time on other activities and, thus, prolong their overall period of study. Finally, the number of students seem to have increased substantially since the 1960s who combine study with work experience in order to enhance both academic and practice-oriented competencies already during their study period. These efforts met increasingly with positive response on the part of higher education. Getting work experience was either facilitated, for example through the increase in distance programmes and distance universities, or actively promoted through steps towards integration of academic learning and work experience: For example, long "internships" were encouraged or became more frequently mandatory components of a study programmes. Some institutions even established "dual programmes", in which students were employees concurrently and spent some periods at their work place and others for study in higher education, before they eventually graduated. A graduate survey undertaken around the year 2000 in 11 countries showed that about 60 per cent of students in some countries, for example Germany and the Netherlands, spent some time of their study period collecting work experience, while this quota had remained at about 20 per cent in some other countries, e.g. Japan and the United Kingdom (Schomburg and Teichler, 2006; see also Allen and van der Velden, 2011). An earlier comparative study addressing prolongation of study and the age at graduation comprehensively showed that, while most students graduated after the required period in some countries - for example in Japan and the United Kingdom, longer study periods were customary in many other countries - even about fifty percent on average in Germany and the United States (Teichler and Steube, 1989).

The third alternative to the traditional notion of regular higher education was the increase of former students who returned to higher education after years of professional activities. Traditionally, the competencies acquired in higher education degree programmes were considered to be more or less sufficient to cope permanently with job requirements: except for initial training, occasional participation in professional training provisions arranged by employers, professional organisation, etc., and some activities of self-learning. The most widely used term "continuing higher education" as well as the term "recurrent education" advocated by OECD indicate that an increased number of former students returned later to higher education for refreshing, updating or upgrading their competencies or to acquire new skills and qualifications. In some countries, higher education institutions even became more important actors in providing continuing education for graduates than other institutions, e.g. those arranged by employers and professional organisations (see Teichler and Hanft, 2009).

The analyses of a growing mix of life stages, study periods and professional work periods mostly addressed changes in learning and in targeted provisions for learning on the part of persons who were eventually employed in typical graduate job outside. They did not raise the question, whether academic careers changed as well into similar directions.

3. Age, learning and work in early academic careers

As already mentioned, the public discourse on academic careers did not seem to have been affected by the generally growing mix of life stages, study periods of professional work paths since the 1960s. Available internationally comparative analyses about the early careers of academics (see Enders, 2006; Teichler, 2006; Galaz-Fontes et al., 2016a; De Lourdes Machado-Taylor et al., 2017; Sarrico et al., 2022) show that a very high proportion of them went through initial higher education in the regular way: Early access to higher education and graduation after the required period of study. As far as respective data had been collected, they also indicate that there were fewer educationally and socially disadvantaged students among them than on average of all students, and that they also were a select group, as far as educational achievements during the study period are concerned. Thus, it is not surprising to note that the development of new mixes of age, study and work discussed above is not mentioned as a rule in analyses of academic careers.

We also should not be surprised to note that the term "continuing higher education" does not play a role in analyses of the interrelationships between learning and work in academic careers. Continuing higher education refers to persons who have got employed after graduation on a typical graduate job – outside academia - and later returned to higher education for enhancing their competences. In contrast, most graduates willing to become academics and embark on the long trail of junior academic career paths remain in higher education institutions.

However, academic careers and other professional careers can be compared from a common overarching perspective: To what extent is initial study considered to provide the competencies needed for the whole professional life, at most complemented by initial training, self-learning or small training programmes over the years, or to what extent is further systematic training and learning at higher education institutions needed to cope with the professional tasks during the whole professional life course?

In looking at the interplay of work and learning, we note a clear difference between academic and other professional careers. In other professional careers, work clearly dominates immediately after graduation or few years later upon completion of initial professional training. After some years of this domination of work, "continuing" education and learning might follow for limited periods each in order to refresh, upgrade or change the substance of work. In academic careers, however, a long period of a mix of work and learning - mostly within higher education - follows initial higher education for many years. Only after a long period - in many countries on average after more than ten years - academics are viewed as mature scholars not anymore visibly in need of learning.

Many specific characteristics of the early academic careers cannot be presented in this framework characterized by presentations of world-wide trends, because we note enormous differences between countries. Some examples might be named, which are included in the comparative study "The Changing Academic Profession" undertaken in 2007-2008 in almost 20 countries reveals (Galaz-Fontes et al., 2016b; see also Teichler and Cummings, 2015). For example, the doctoral degree is to a lesser extent a regular element of academic careers than generally assumed: More than 90 per cent of senior academics at institutions of higher education had been awarded a doctoral degree during their junior career in very few countries; in various countries addressed in the comparative study, this held true for about three quarters of senior academics, and even for less than half of them for example in Italy and Argentina. In some countries, academics were awarded the doctoral degree on average at the age of about 30 years, but in other countries, the average year of award was even higher than 40 years.

But also between those countries, where more than 90 per cent of senior academics were doctoral degree holders, enormous differences between the junior career paths can be observed. This might be illustrated by a look at Germany - a higher education system assumed to be strongly shaped by the Humboldtian tradition of a strong emphasis on research - and at the United States of America - a country which was often considered in recent decades as a success model for many other countries decades (see Burn, 1992; Schuster and Finkelstein, 2006; Janson, Schomburg and Teichler, 2007).

In Germany, all study programmes in universities until the early years of the 21st century led to a single degree level, which was internationally considered to be equivalent to a master degree. Almost one fifth of the graduates intended to be eventually awarded a doctoral degree. Doctoral candidates as a rule were not enrolled at a university as a student, but could apply at any stage of their work on the dissertation to be officially registered as a doctoral candidate. About half of them were employed in a university as academic associates on temporary positions funded either through the university budget or by research grants acquired by individual professors, and were primarily involved in research supervised by the professor, who was their individual supervisor - traditionally called "Doktorvater" (doctor father). Other doctoral candidates were awarded a doctoral fellowship, funded work on the dissertation themselves, or were employed in other professional

areas. After the award of the doctoral degree, the majority opted for a career in other professions, while a minority intended to pursue a further academic career. Most of the latter again were employed as research associates and linked to an individual professor. Traditionally, they were expected to reach a "Habilitation" - a kind of advanced-level doctorate, in order to be eligible for a professor position. Most of the scholars on post-doctoral level had to survive a period of more than ten years of temporary employment or search for other means, before a minority of them eventually was appointed to a professor position - mostly at the age between 40 and 45 years. Two levels of professor positions existed, but not any position equivalent to an U.S. assistant professor position. In sum, the most common junior academic career path was characterized by employment for regular academic work predominantly research work supervised by an individual professor, who determined the extent to which and how this work was intertwined with training and learning.

In recent decades, the German junior academic career path became more similar to the U.S. model. Some universities and departments introduced doctoral programmes, but less than a quarter of candidates are involved. A bachelor-master system was introduced in the first decade of the 21st century, but most students view the bachelor just as an interim stage towards a really important university degree. Universities established some "junior professor" positions similar to assistant professorships in the U.S., but the number of these positions remained too small to become part of a dominant career path.

In the U.S., persons having been awarded the initial university degree, the bachelor, continue to be students formally-in graduate programmes usually lasting two years and leading to master degree and in doctoral programmes usually lasting three years and leading to a doctoral degree after a number of years. The majority of persons enrolling in doctoral programmes thrive for an academic career. Many of them get employed after the award of the doctoral degree at universities as lecturers or as assistant professors-often for a period of six years-without any individual supervision or with any arrangement of advanced training. The eventual appointment of many of them as an associate professor is understood as promotion to a mature scholar position. Thus, in contrast to the German model, the junior academic career stage in the U.S. is characterized on the one hand by a longer period of being defined as a learner and on the other hand by an earlier transition to independent academic work not anymore shaped by senior academics.

It should be pointed out that these dominant modes of junior academic careers in Germany and U. S. are not typical for all disciplines. In Germany, many senior professors in medical fields, engineering, teacher training and fine arts, have been active in the corresponding professional fields for some years, before they were appointed as professors. In U.S., this applies as well for senior academics in so-called professional fields, which also includes medical fields and engineering, but some other science areas and business studies as well.

A detailed international study of the formal links between learning and productive academic work could show that the initial degrees are nowhere considered to care for a sufficient basis of competencies for individually independent academic work. A mix of further learning and academic work is considered the norm for a long junior stage of the academic career - lasting ten to fifteen years as the rule. Thereby, the features of separate learning and separate work or of mixes between learning and work vary between countries or between parallel models, for example varying by discipline, within countries. When the academic eventually reach a senior position, however, only productive academic work and teaching or in other ways supervising the juniors is on the agenda.

4. Towards continuous learning in academic careers?

As already pointed out, concepts of "continuing education", recurrent education", "life-long learning" etc. did not only become more popular with regard to higher education in recent decades, because the individual demand for higher education diversified in the process of massification of higher education, but also, because the conviction grew that the developments in technology, economy society and culture required more updating, upgrading and more changes of directions in the professional life-courses of graduates and, thus, more learning and training accompanying productive work. Increasing provisions in higher education for continuing higher education, thus, were seen as an appropriate response to changing demands posed on university graduates in their varied areas of professional work.

Academics work in an area, in which new knowledge has to be thrived for permanently and in which training and learning beyond initial study has been already institutionalized traditionally to a high extent. One could draw the conclusion that need for innovation was taken care of already in the past and that no further was response was needed in recent decades. In fact, the discourses on the academic profession in recent decades did not suggest that increased continuous learning in the course of academic careers was necessary.

However, we note another substantial change of the situation of the academic profession. In most countries, the role of senior academic was characterized by an enormously high degree of academic freedom. Professors could to large extent decide about the substance and the priorities of their academic work, and they had an enormous decision-making power within their department and their university. Since about the 1990s, however, we note more or less worldwide a trend of increasing incentives, regulations and sanctions in higher education reducing the traditional freedom of action and as well the power to shape their institutional environment (see for example Enders and van Vught, 2007; Whitley and Gläser, 2007; Pusser, 2008; Locke et al., 2011; Kwiek, 2015). In many countries, government reduced detailed supervision of higher education, but strengthened the power of the university leadership and management to steer academic activities (see Huisman, 2009; Kehm, 2010). The term "managerialism" often is employed to characterize the strong power often imposed on academia (see for example Hyde et al., 2013; Leisyte, 2015; Teichler, 2021), In addition, mechanisms of assessments of academics were newly arranged or gained

weight, which increased pressure on academics to thrive for more intensive work, for a higher quality of academic work or to turn the academic work into desired directions: We note an establishment or increase of importance of formal evaluation systems, a spread of various reviews for research funding, for publications, for the remuneration of academics, etc. (see for example Kells, 1999; Cavalli, 2007), and often just an establishment or extension of information systems, for example "rankings" of universities and individual scholars (see for example Kehm and Stensaker, 2009; Hazelkorn, 2011; Shin et al., 2011; Espeland and Sauder, 2016), which exert pressures on academics to compete or adjust to desired mainstreams of desired academic work.

Research on the views and activities of the academic profession, notably the comparative surveys in recent decades (Altbach, 1996; Teichler and Höhle, 2013; Teichler et al., 2013; Huang et al., 2022), have shown that the majority of academics change their views and activities in response to the changing higher education policies, regulations, expectations and pressures moderately – neither as much as expected nor only minimally. It does not come as surprise that discussions had spread in recent years whether fruitful benefits of "academic freedom" are endangered, what the consequences for quality of academic work are and whether academic work becomes more meaningful and beneficial for technology, economy, society and culture, and whether academic work, in contrast, is losing its relevance and creativity due to "over-steering" (Krücken et al., 2018).

But the basic theme discussed in this article, the distribution between learning and productive work over the years in the life course of academics, has not become a major theme of discourse. Future higher education research should raise the question, whether the growth of efforts in recent to steer the academics' views and activities had led to a stronger willingness of academics to reflect their professional role and to increase activities which could be called "lifelong learning". If such an impact of increased academics' lifelong learning could be observed, of course, the question has to be raised, whether this additional learning and enhancement of competencies reinforces adaptive behaviour to the currently fashionable external pressures or helps improve academic productivity and academic creativity.

References

- Abrahamson, K. (1986). Adult Participation in Swedish Higher Education. Stockholm: Almquist & Wiksell International.
- Abrahamson, K, Rubenson, K. and Slowey, M. (1988). Adults in the Academy. International Trends in Adult and Higher Education. Stockholm: SNBE.
- Allen, J. and van der Velden, R. (eds.) (2011). The Flexible Professional in the Knowledge Society: New Challenges for Higher Education. Dordrecht: Springer.
- Altbach, P. G. (eds.) (1996). The Changing Academic Workplace: Comparative Perspectives. Princeton, NJ: Carnegie Foundation.
- Burn, B. B. (1992). Degrees: Duration, structures, credit,

and transfer. In Clark, B. R. and Neave, G. R. (eds.) (1992), The Encyclopedia of Higher Education. Volume 3. Oxford: Pergamon Press, pp. 1579-1586.

- Cavalli, A. (eds.) (2007). Quality Assessment for Higher Education in Europe. London: Portland Press.
- Centre for Educational Research and Innovation (CERI) (1973). Recurrent Education: A Strategy for Lifelong Learning. A Clarifying Report. Paris: OECD.
- Centre for Educational Research and Innovation (CERI) (1987). Adults in Higher Education. Paris: OECD.
- Clark, B. R. and Neave, G. R. (eds.) (1992). The Encyclopedia of Higher Education. 4 volumes. Oxford: Pergamon Press.
- De Lourdes Machado-Taylor, M., Meira Soares, V. and Teichler, U. (eds.) (2017). Challenges and Options: The Academic Profession in Europe. Cham: Springer.
- Duke, C. (1992). Adult and continuing higher education. In Clark, B. R. and Neave, G. R. (eds.) (1992), The Encyclopedia of Higher Education. Volume 2. Oxford: Pergamon Press, pp. 1055-1061.
- Enders, J. (2006). The academic profession. In Forest, J. F. and Altbach, P. G. (eds.), International Handbook of Education. Dordrecht: Springer, pp. 1-21.
- Enders, J. and van Vught, F. (eds.) (2007). Towards a Cartography of Higher Education Policy Change: A Festschrift in Honour of Guy Neave. Enschede: CHEPS, University of Twente.
- Espeland, W. N. and Sauder, M. (2016). Engines of Anxiety: Academic Rankings, Reputation, and Accountability. Washington. D. C.: Russel Sage Foundation.
- Galaz-Fontes, J., Arimoto, A., Teichler, U. and Brennan, J. (eds.) (2016a). Biographies and Careers throughout Academic Life. Cham: Springer.
- Galaz-Fontes, J., Arimoto, A., Teichler, U. and Brennan, J. (2016b). Demographics, career and academic selfunderstanding: A comparative view. In Galaz-Fontes, J., Arimoto, A., Teichler, U. and Brennan, J. (eds.), Biographies and Careers throughout Academic Life. Cham: Springer, pp. 317-340.
- Hanft, A. and Knust, M. (2009). Comparative Overview of Study Results. In Knust, M. and Hanft, A. (eds), Continuing Higher Education and Lifelong Learning: An International Comparative Study on Structures, Organisation and Provisions. Dordrecht: Springer, pp. 23-69.
- Hazelkorn, E. (2011). Rankings and the Reshaping of Higher Education: The Battle for World-Class Excellence. Basingstoke: Palgrave Macmillan.
- Hore, T. (1992). Non-traditional students: Third-age and parttime. In Clark, B. R. and Neave, G. R. (eds.) (1992), The Encyclopedia of Higher Education. Volume 2. Oxford: Pergamon Press, pp. 1055-1061.
- Huang, F., Aarrevaara, T. and Teichler, U. (eds.) (2022). Teaching and Research in the Knowledge Society – Historical and Comparative Perspectives. Cham: Springer.
- Huisman, J. (ed.) (2009). International Perspectives on the Governance of Higher Education: Alternative Frameworks for Coordination. New York: Routledge.

Hyde, A., Clarke, M. and Drennan, J. (2013). The changing

role of academics and the rise of managerialism. In Kehm, B. M. and Teichler, U. (eds.), The Academic Profession in Europe: New Tasks and New Challenges. Dordrecht: Springer, pp. 39-52.

- Janson, K., Schomburg, H. and Teichler, U. (2007). Wege zur Professur: Qualifizierung und Beschäftigung an Hochschulen in Deutschland und den USA (Paths towards the professorship: Qualification and employment at higher education institutions in Germany and the U.S.A.). Münster: Waxmann.
- Kehm, B. M. (2010). From government to governance: New mechanisms of steering higher education. Higher Education Forum 7, 21–33.
- Kehm, B. M. and Stensaker, B. (eds.) (2009). University Rankings, Diversity, and the New Landscape of Higher Education. Rotterdam, Boston and Taipei: Sense Publishers.
- Kells, H. R. (1999). National higher education evaluation systems: Methods for analyses and some propositions for the research and policy void. Higher Education 38 (2), 209-232.
- Krücken, G., Engwall, L. and de Corte, E. (eds.) (2018). University governance and creativity (special issue). European Review 26 (Supplement 1).
- Kwiek, M. (2013). Knowledge Production in European Universities: States, Markets, and Academic Entrepreneurialism. Frankfurt am Main: Peter Lang.
- Leisyte, L. (2015). Changing academic identities in the context of a managerial university – bridging the duality between professions and organizations. In Cummings, W. K. and Teichler, U. (eds.), The Relevance of Academic Work in Comparative Perspective. Cham: Springer, pp. 59-63.
- Locke, W., Cummings, W. K. and Fisher, D. (eds.) (2011). Changing Governance and Management in Higher Education: The Perspective of the Academy. Dordrecht: Springer.
- Pusser, B. (2008). The state, the market and the institutional estate: Revisiting contemporary authority relations in higher education. In Smart, J. (ed.), Higher Education: Handbook of Theory and Research, Volume 23. New York: Agathon Press, pp. 105-139.
- Sarrico, C. S., Rosa, M. J. and Carvalho, T. (eds.) (2022). Research Handbook on Managing Academics. Cheltenham and Northhampton, MA: Edward Elgar.
- Schomburg, H. and Teichler, U. (2006). Higher Education and Graduate Employment in Europe: Results from Graduate Surveys from Twelve Countries. Dordecht: Springer.
- Schuster, J. H. and Finkelstein, M. J. (2006). The American Faculty – The Restructuring of Academic Work and Careers. Baltimore, MD: John Hopkins University Press.
- Shin, J. C., Toutkoushian, R. K. and Teichler, U. (eds.) (2011). University Rankings: Theoretical Basis, Methodology, and Impacts on Global Higher Education. Dordrecht: Springer.
- Stephens, M. (1992). Participation of adults in higher education. In Clark, B. R. and Neave, G. R. (eds.) (1992), The Encyclopedia of Higher Education. Volume 2. Oxford: Pergamon Press, pp. 992-999.

- Teichler, U. (1988). Changing Patterns of the Higher Education System: The Experience of Three Decades. London: Jessica Kingsley Publishers.
- Teichler, U. (1999). Lifelong learning as challenge for higher education: The state of knowledge and future research tasks. Higher Education Management 11 (1), 37-53.
- Teichler, U. (ed.) (2006). The Formative Years of Scholars. London: Portland Press (Wenner-Gren International Series, Vol. 83).
- Teichler, U. (2021). Are academics driven by managerialism? Governance and the changing role of academics on the ways towards a knowledge society. Acta Paedagogica Vilnensia 48, 13-26.
- Teichler, U., Arimoto, A. and Cummings, W. K. (eds.) (2013). The Changing Academic Profession: Major Findings of a Comparative Survey. Dordrecht: Springer.
- Teichler, U. and Cummings, W. K. (eds.) (2015). Forming, Recruiting and Managing the Academic Profession. Cham: Springer.
- Teichler, U. and Hanft, A. (2009). Continuing higher education in a state of flux: An international comparison of the role and organisation of continuing higher education. In Knust, M. and Hanft, A. (eds), Continuing Higher Education and Lifelong Learning: An International Compar-

ative Study on Structures, Organisation and Provisions. Dordrecht: Springer, pp. 1-13.

- Teichler, U. and Höhle, E. A. (eds.) (2013). The Work Situation, Views and Activities of the Academic Profession: Findings of a Survey in Twelve European Countries. Dordrecht: Springer.
- Teichler, U. and Steube. W. (1989). Studiendauer und Lebensalter (Duration of Study and Age). Bonn: BMBW (Bildung – Wissenschaft – international, No. 1/89).
- Tight, M. (1996). Key Concepts in Adult Education and Training. London: Routledge.
- Trow, M. (1970). Reflections on the transition from mass to universal higher education. Daedalus 90 (1), 1-42.
- Trow, M. (1974). Problems in the transition from elite to mass higher education. In OECD (ed.), Policies for Higher Education. Paris: OECD, pp. 51-101.
- Tuijnman, A. and Schuller, T. (eds.) (1999). Lifelong Learning Policy and Research. London: Portland Press (Wenner-Gren international Series, Vol. 75).
- Whitley, R. and Gläser, J. (eds.) (2007). The Changing Governance of the Sciences. Dordrecht: Springer.
- Williams, G. (1979). Towards Lifelong Education: A New Role for Higher Education Institutions. Paris: UNESCO.