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Introducing and Assessing Learning-Focused Course Design at the University of Virginia, USA and at Bielefeld University, Germany

Abstract

This article presents a study assessing the effectiveness of course design interventions in moving instructors from a content-focused to a learning-focused approach to teaching. It describes the basic elements of course design seminars at Bielefeld University and at the University of Virginia and the role of syllabi as instruments for communicating learning-focused principles. The authors introduce their assessment tools designed to evaluate the efficacy of the course design interventions including a reliable syllabus rubric and a syllabus toolkit. The study findings suggest that both seminars are effective in helping instructors adopt a more learning-focused approach to teaching. The concluding discussion considers the implications of the study for academic developers, including contextual factors affecting the utility of syllabi as course design tools, and suggests avenues for future research.

Keywords

Course Design; Learning-focused principles; Syllabus; Assessment

Lehre lern(prozess)orientiert gestalten und eva- luieren – eine Untersuchung von hochschuldi- daktischen Fortbildungen an der University of Virginia und der Universität Bielefeld

Zusammenfassung

An der Universität Bielefeld und an der University of Virginia wurden Fortbildungen entwickelt, die Lehrende dabei unterstützen, lehrbezogene Qualifikationen zu erwerben. Wir stellen eine Evaluationsstudie vor, die untersucht, inwieweit diese

Fortbildungen zu einer Veränderung von einem inhaltsfokussierten hin zu einem stärker lernprozessorientierten Ansatz in der Lehre führen. Die grundlegenden Elemente der Fortbildungen werden vorgestellt mit besonderem Fokus auf der Rolle von Syllabi (schriftliche Lehrveranstaltungsprogramme) als Instrumente zur Kommunikation lernprozessorientierter Lehrprinzipien. Die von den Lehrenden im Laufe der beiden Fortbildungen verfassten Syllabi wurden hinsichtlich ihrer Lernprozessorientierung mit einer reliablen Bewertungstabelle (*rubric*) und mit einem sogenannten *syllabus toolkit* analysiert. Die Ergebnisse zeigen, dass beide Fortbildungen Lehrende dabei unterstützen, ihre Lehre stärker lernprozessorientiert auszurichten. Abschließend werden die Implikationen für hochschuldidaktische Fortbildungen aufgezeigt. Dabei werden auch die spezifischen Unterschiede des amerikanischen und deutschen Hochschulsystems insbesondere hinsichtlich des Einsatzes von Syllabi im Rahmen der Lehrveranstaltungsplanung diskutiert, und es wird ein Ausblick auf zukünftige Forschungsvorhaben gegeben.

Schlüsselwörter

Lehrveranstaltungsplanung; lernprozessorientierte Lehre; Syllabus; Evaluation; hochschuldidaktische Fortbildung

1 Introduction

Intensive course design workshops have become popular in academic development in the USA and, to an increasing degree, also in Germany. Johnson, Nelms, Linder and Palmer (2012) argue that they are widespread across cultural and disciplinary contexts and institutional types. Although they greatly vary in length – from day-long to semester-long workshops – most of them draw on the research on backward and integrated course design (Fink, 2013; Wiggins & McTighe, 2005), educative assessment (Huba & Freed, 2000; Wiggins, 1998), active learning (Bonwell & Eison, 1991), and student motivation (Schunk, Pintrich & Meece, 2007; Svinicki, 2004). The main goals of these interventions are to help instructors adopt evidence-based teaching practices and move from a content-focused to a learning-focused approach to teaching and adopt evidence-based teaching practices.

These are also the central aims of the University of Virginia's (U Virginia) Teaching and Learning in Higher Education pedagogy seminar and the Bielefeld University (Bielefeld U) certificate program (<http://www.uni-bielefeld.de/pep/zertifikat> [15.10.2016]). In both programs, course design plays a pivotal role in helping teachers a) understand and begin to apply basic theories of student learning, development, and motivation, b) reflect on concepts such as content-focused vs. learning-focused instruction, c) apply principles of integrated course design, d) analyze beliefs and practices about teaching, and e) build a community of practice.

In Bielefeld U's certificate program, course design is the first of three modules. It is the program's foundational module, consisting of 35 contact hours and 60 work units stretched over the course of a semester (Riewerts, Paulsteiner-Doms & Weiß, 2016). Likewise, course design is a central part of U Virginia's semester-long pedagogy seminar and comprises approximately 11 of its 22 contact hours. The intended audience for U Virginia's seminar are advanced doctoral students with varying degrees of teaching experience wishing to prepare for college teaching careers. Bielefeld U's certificate program attracts faculty with a wide range of teaching experience. Participants of both interventions spend a considerable amount of time working outside of the seminar and the module on their design. Although U Virginia's pedagogy seminar and Bielefeld U's certificate program differ greatly in intensity (22 vs. 120 contact hours total, respectively) and number of participants (approximately 30 vs. 15 per cohort), both interventions rest on the belief that course design is an excellent vehicle for participants to apply what they learn about teaching to their work in the classroom and translate learning-focused beliefs into the design of a new course.

Although both programs rely on similar theoretical models and the practical concepts of integrated backward course design, there exist fundamental cultural differences in the German and US higher education systems. As will be discussed, these differences affect participants' understanding of learning-focused course design principles as well as of concepts and definitions such as learning goals and objectives, feedback, rubrics, summative and formative assessment, etc.

In this paper, we describe the main design features of U Virginia's pedagogy seminar and Bielefeld U's certificate program and illustrate how we use syllabi in our academic contexts to help faculty create learning-focused courses. We will introduce a recently developed syllabus rubric (Palmer, Bach & Streifer, 2014a, 2014b) and a syllabus toolkit

designed to evaluate the efficacy of the course design interventions. We will share the results from our assessment study and discuss the implications for academic development programs focusing on course design. We will also examine the importance of cultural considerations for working with syllabi and suggest avenues for future research.

2 Designing learning-focused courses

Both of our educational development interventions include course design as a central building block. In line with the literature (Blumberg, 2009; Diamond, 2011; Fink, 2013; Hansen, 2012), our assumption is that through the process of learning how to design a learning-focused course, instructors can be introduced to essential teaching and learning concepts, theories and evidence-based practices. At both institutions we begin the backward, integrated design process with what we call a dream exercise, inviting participants to imagine the ideal circumstances for teaching their course. These include highly motivated and capable students, supportive colleagues and a nurturing institution. We then ask them: Three to five years after your students complete your course, what would distinguish this group of students? What do they still know? What are they still able to do? What do they value?

After time for individual, reflective writing, we ask instructors to share their vision and the goals they have for their students. Without prompting, these goals always go beyond content goals and include metacognitive, application, integration, and affective goals. They neatly map onto Fink's taxonomy of significant learning experiences, which repackages and expands on Bloom's Taxonomy of Educational Objectives (Krathwohl, 2002). By seeing how their goals span the full range of Fink's six kinds of significant learning (Foundational Knowledge, Application, Integration, Human Dimension, Caring, and Learning How to Learn) (Fink, 2013, p. 83), participants accept Fink's notion that learners need to be engaged on multiple dimensions which include the cognitive, affective, and self-directed learning domains.

The dream exercise and Fink's taxonomy are powerful tools to begin the process of shifting instructors' thinking about their role as teachers. As they formulate their goals, they begin to understand on a deeper level that "covering material" does not equal learning, and that affect and motivation are crucial for human learning. Motivation theory, especially the expectancy/value theory (Eccles, 1983) becomes an additional resource for faculty and they begin to see the possibility that they should and, indeed, can engage students as whole learners.

As we move through the design process, we help instructors translate their long-range, aspirational goals for students' learning into measurable learning objectives, introduce them to creative ways of assessing and evaluating student learning, share research on active learning, and offer opportunities to explore collaborative learning techniques (Barkley, Cross & Major, 2014) as well as classroom and learning assessment techniques (Angelo & Cross, 1993; Barkley & Major, 2015).

2.1 Syllabi as blueprints for pedagogical approaches and instructional activities

Throughout this design process, instructors at U Virginia and Bielefeld U translate their design decisions into a learning-focused syllabus. Learning-focused syllabi are here understood as documents that are written primarily for students with the goal to motivate deep learning and to provide guidance for how to be successful in the course.

Learning-focused syllabi stand in contrast to content-focused syllabi which have been the standard in US higher education for many decades. In fact, the term syllabus as referring to an outline of lectures or a course dates back as far as 1889 (Parkes & Harris, 2002). Today, syllabi are required documents for departmental and school-wide curriculum approval processes and typically include a course description, course requirements, evaluation criteria, policies, and a schedule of topics. They are also used as evidence of instructors' teaching ability in performance evaluations and job interviews, and the institution's adherence to curricular and accreditation guidelines. As documents for communicating with students, syllabi are seen as essential in giving students a sense of the course content and what is expected of them (Habaneck, 2005).

Thus, in the US, syllabi have historically been viewed as a contract between teacher and student and as a document for record-keeping purposes (Parkes & Harris, 2002; Slattery & Carlson, 2005). In the last couple of decades, however, with the move from the instruction- to the learning-centered paradigm (Barr & Tagg, 1995), the communication function of the syllabus has shifted and instructors and academic developers have begun to redefine its purpose. Slattery and Carlson (2005), for example, argue that the most effective syllabi move beyond contractual functions to invite students in a warm, motivational style to engage as collaborators in the learning process. Likewise, Parkes and Harris (2002) recognize the potential value of syllabi as learning tools and stress six ways in which syllabi can foster learning, from guiding students toward being self-regulated learners to modeling the values of a field, discipline, and academic integrity. Grunert O'Brien, Millis and Cohen (2008) highlight that syllabi are the first opportunity that faculty have to encourage and guide students to take responsibility for their learning.

With an inviting tone and language, a truly learning-focused document exemplifies what Ken Bain (2004, p. 74) calls a "promising syllabus": a learning-focused document that communicates clearly and compellingly to students what they will gain from the course, what they will do to achieve the promised gains, how they will know whether they are getting there, and how best to study. By documenting their design in a learning-focused syllabus, instructors create a learning guide for students as well as a blueprint for instructional activities.

In the next section, we describe how the academic development programs at U Virginia and Bielefeld U use learning-focused syllabi and a syllabus rubric to introduce evidence-based teaching approaches. With slight differences, we do so in both programs through (1) an introductory syllabus analysis activity, (2) model syllabi, and (3) a syllabus rubric.

2.1.1 Syllabus analysis activity

Both interventions use a syllabus analysis activity to introduce learning-focused principles. We ask participating instructors to compare three preselected syllabi that cover the spectrum from learning-focused to content-focused syllabi, considering the purpose(s) of the document, its intended audience, and what the instructor appears to value. We prompt instructors to pull in evidence for their arguments by looking at learning objectives, assessments and assignments, section headings, organization, language, and tone.

During the discussion, instructors at Virginia and Bielefeld reliably raise a number of salient points. They observe that syllabi audience matters; if written for a student audience, syllabi can be used as vehicles to awaken students' curiosity for the course and the material. They will note that learning-focused syllabi encompass the full range of Fink's taxonomy of significant learning goals, communicate measurable objectives clearly and compellingly, are written in an inviting tone (vs. the more technical and abstract language found in content-focused syllabi, module descriptions and course descriptions in course catalogues [*Vorlesungsverzeichnis*]), and communicate confidence that all students can succeed. Because of different levels of familiarity with the concept of the syllabus in the US and in Germany, the syllabus discussion differs in important ways. Due to their preexisting frame of reference U Virginia instructors tune into additional differences between a content-focused and a learning-focused syllabus, noting that the latter deemphasizes the contractual aspect of course policies and requirements and reframes them as learning activities. At Bielefeld U, on the other hand, instructors often spend a significant portion of time discussing the purpose of the document and its value as a tool for communicating with their students.

In terms of understanding the idea of integrated course design, however, both groups of participants generally identify the importance of defining course goals and aligning classroom activities and assessments in support of these goals. By analyzing syllabi, they begin to ask important questions about teaching and learning, and academic developers can amplify and build on such questions and link them to evidence-based teaching practices.

2.1.2 Learning from exemplary syllabi

As instructors engage in a backward design of their own courses, beginning with developing learning goals and objectives, creating assessments to measure progress toward these objectives and activities that give students practice towards achieving them, they use the format of the syllabus to make their design explicit. Whereas almost all instructors at Virginia understand that theirs – in contrast to the conventional syllabi – will be a syllabus that is written for students, with the purpose of inviting and motivating them through a learning-focused, integrated design, not all German participants accept syllabi as useful tools for designing courses and communicating with students. In some cases, the concept of syllabus remains murky until the end of the course design process.

At Virginia, participants have access to a large collection of exemplary learning-focused syllabi from a variety of disciplines that they can refer to throughout the iterative process of writing and refining various aspects of the syllabus. Academic developers at

Virginia encourage participants to learn from these model syllabi and adapt ideas for their own courses. In Bielefeld, participants have access to publicly available collections of syllabi, literature (e.g. Nilson, 2010) and handouts, but they do not have explicit access to model syllabi other than the one provided in the workshop's syllabus analysis activity. The goal here is to offer faculty as much freedom as possible and help them find their own voice.

2.1.3 Syllabus rubric as a self-assessment tool

Later in the design progress at Virginia, we share with participants a syllabus assessment rubric to offer them a chance to rate their own syllabi on a scale from content-focused to learning-focused. The syllabus rubric was originally developed to assess the effectiveness of our course design interventions (Palmer et al., 2014a, b). However, although our rubric is fairly elaborate, by the time participants engage with it, they have become fluent with the integrated design concepts the rubric is based on and find it easy to apply. The participants enjoy the experience of self-assessing their work using well-defined criteria and standards while leaving room for the creativity of individual expression and variation. In addition, participants at U Virginia and Bielefeld U use the rubric to give each other peer feedback as they work to refine their course syllabi.

Putting the syllabus rubric in the hands of participants has an additional effect. In the process of using it, participants experience first-hand the value of rubrics in general. They begin to see that rubrics can not only be used to make grading fairer and more efficient, but discover experientially that they are learning tools that help students understand the criteria and standards of an assignment and give them practice in assessing their own work. As such, the syllabus rubric activity helps reinforce the importance of meta-cognition for learning while simultaneously offering rubrics as a powerful tool for fostering it.

3 Assessing the efficacy of the course design interventions

Our assessment effort contributes to the growing body of research aimed to move beyond measuring mere participant satisfaction and changes in attitudes and probe other dimensions of Kreber and Brook's (2001) six-step educational development impact model. This new research takes into focus the full arch of Kreber and Brook's impact model and examines how changes in participants' beliefs about teaching translate into changes in teaching practices. Some more recent efforts go even further and investigate how changes in teaching practices impact students' perceptions of teaching and their learning.

Figure 1 uses Kreber and Brook's model to provide a map of the tools we used to assess the two programs described in this study including satisfactions and perception surveys, a self-efficacy survey, a teaching scenario, a syllabus toolkit and a syllabus rubric.

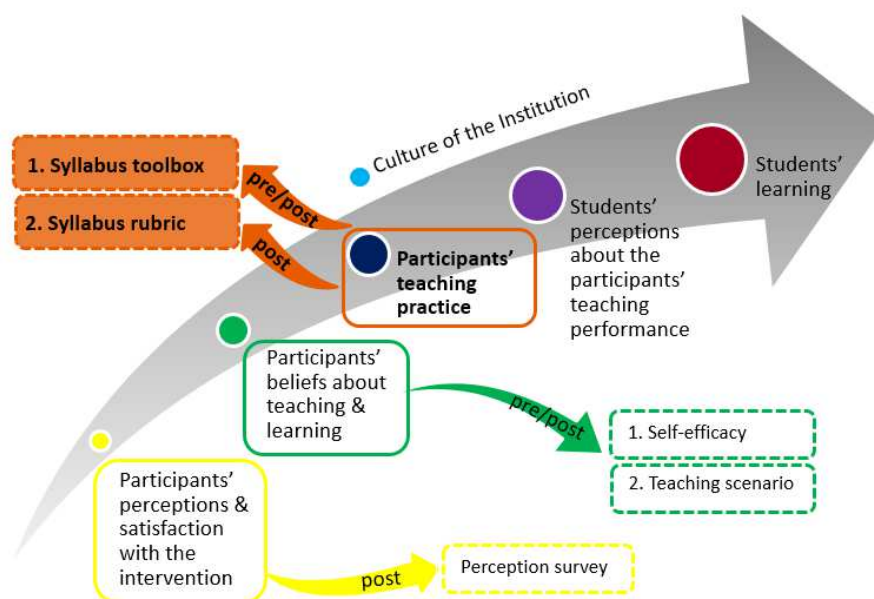


Fig. 1: Overview of the complete set of assessment tools employed at U Virginia and Bielefeld U as they map onto Kreber & Brook's institutional change model (2001, p. 101). We note that we changed Kreber and Brook's original terminology from "teaching performance" to "teaching practices" to better capture the complexity of the teaching process which includes communications that occur outside of class and teaching materials such as syllabi, assignments, and assessments.

3.1 Assessment study

To evaluate the impact of U Virginia's pedagogy seminar and the Bielefeld U certificate program, we used a number of assessment tools. We asked participants to complete standard satisfaction surveys to measure their satisfaction post intervention. To evaluate participants' beliefs about teaching and learning, we used the Teaching Appraisal Inventory (adapted from Balam, 2006; pre/post) and a challenging teaching scenario requiring participants to diagnose classroom problem(s) and suggest reactive and proactive solutions (pre/post; Inkelas, Jones, Robinson & Cole, 2013). To understand how participants enact those beliefs in the design of their courses, we evaluated the learning-focus of participants' syllabi with our syllabus rubric (post) and used a syllabus toolkit to analyze how they go about constructing syllabi (pre/post).

The syllabus toolkit used in the present study was created in collaboration between Virginia academic developers at the Center for Teaching Excellence and educational researchers at the Center for Advanced Study of Teaching and Learning in Higher Education (Palmer, Bach & Inkelas, 2014). The syllabus rubric used in our study was developed by academic developers Palmer et al. (2014a, 2014b) and is currently being adopted by a number of US academic development centers.

At U Virginia, data was collected from participants in two cohorts of the semester-long pedagogy seminar in 2012 and 2013. The two cohorts consisted of 57 advanced doctoral students from 19 departments. Roughly one third of the participants had no teaching experience, one third of the participants had moderate levels of teaching experience (1-3 semesters of serving as a teaching assistant), and one third had considerable teaching experience (more than 3 semesters of serving as a teaching

assistant or teaching an independently designed course).

At Bielefeld U, data was collected from participants in two cohorts of the certificate program in 2013 and 2014. The two cohorts consisted of 30 participants (19 doctoral and 11 postdoctoral instructors) from nearly all departments of Bielefeld U with a prevalence of humanities and social sciences. Participants had a wide range of teaching experience (from completely new to teaching to 10 years of teaching experience and from 1 to 54 courses already taught). Their teaching load also varied from voluntary teaching, 1 course (2 SWS) up to 6-7 courses (13 SWS) depending on the position (e. g. part-time or full-time).

Because this article focuses on syllabi as a tool for helping instructors adopt learning-focused approaches to teaching, we report here only the results of data collected through the syllabus rubric and the syllabus toolkit. We offer an analysis of our data noting the limited sample sizes.

3.2 Assessment results

3.2.1 Syllabus rubric

Since one central goal of both programs is to move participants from a content-focused to a learning-focused approach to teaching, the syllabus rubric was designed to measure where a syllabus falls on this continuum. After the completion of the interventions, the syllabus rubric (Palmer et al., 2014 a, 2014b) was used to rate the syllabi developed by the participants. The full syllabus rubric is organized around five large-scale criteria: Learning Goals and Objectives, Assessment Activities, Learning Activities, Schedule, and Overall Learning Environment, which includes a syllabus' tone, promise, and inclusivity. These large scale criteria are broken down in 16 components and are scored on the strength of supporting evidence, the maximum score being 58.

At U Virginia, due to the low number of contact and work hours, seminar participants focused on creating course goals and objectives as well as drafts of sample assessment and assignments. Because they did not create a full syllabus, their syllabi were only evaluated along the following criteria in the rubric: learning focus of the syllabus's goals and objectives, and the tone of the overall document, with a minimum score of 0 and a maximum score of 16.

After scoring the syllabi, the two independent raters compared evaluations. If there were any criteria for which the two raters differed in their evaluations by more than 1-point separation, the raters discussed their rationales, and eventually came to a consensus on a more consistent rating among the two. The scores were subsequently grouped into 3 categories: 0-5 represented a content-focused syllabus; 6-11 indicated a transitional phase between a content- and learning-focused syllabus; and 12-16 signified a syllabus with a learning focus.

The results of the syllabi evaluations at Virginia (n=48; not all of the 57 participants submitted materials) showed that significantly more doctoral students emerged with learning-focused syllabi at the conclusion of the seminar: while 5 of 48 (10.4%) syllabi remained content-focused, 20 (41.7%) were classified as transitional and 23 (47.9%) were in the learning-focused category.

At Bielefeld, because of the more extensive timeframe, participants created full syllabi and we used the complete rubric to assess the syllabi. Since the emphasis in the course design workshops at Bielefeld lies on encouraging participants developing and applying learning-focused activities, and align possible assessment activities in line with the examination regulations, it was initially important to include the criteria regarding learning activities in assessing the syllabi.

Before evaluating the syllabi, two members of the Bielefeld academic development staff were trained by the Virginia staff in the use of the rubric. After scoring the syllabi independently, they discussed the results and resolved differences by finding a consensus. On the 58-point range of the full rubric scores between 0 and 18 designate a content-focused, scored between 19 and 40 a transitional and scores between 41 and 58 a learning-focused syllabus (Palmer et. al., 2014 a, 2014b).

The results of the syllabi evaluations at Bielefeld (n=29; one participant did not finish the foundational module of the certificate program and thus did not write a final version of the syllabus) based on the complete rubric show that most syllabi fall in the learning-focused (11 of 29; 37.9%) or transitional range (11 of 29; 37.9%), while 7 of 29 (24.13%) remain content-focused. When evaluating the syllabi along the limited set of criteria used at Virginia (learning focus of the syllabus's goals and objectives, and the tone of the overall document) most syllabi fall in the transitional (13 of 29; 44.8%) and 10 of 29 (34.5%) fall in the learning-focused range, while 6 of 29 (20.7%) remain content-focused.

Using the average rating scores for 0-16-point scale, a comparison of the results of Virginia and Bielefeld shows a 10.49 average rating for the syllabi at Virginia, compared to an 8.86 average rating for the syllabi at Bielefeld; however, a t-test reveals that the Bielefeld and Virginia ratings are not significantly different ($t=-.99$; $df=63$; $p=.32$). The lack of significant results may be due to the low sample size.

3.2.2. Syllabus toolkit

The syllabus toolkit was designed to evaluate instructors' priorities when constructing a new syllabus. On a pre- and post-test, participants were asked to indicate what they would include in a new syllabus if they had to create one from scratch. First, we simply asked an open-ended question: *In the space below, please list the typical components you would use if you were to construct a syllabus for a new course (e.g., contact information, course description or schedule). Please describe your thought-process when constructing a syllabus for a new course.*

This question is meant to gauge participants' initial ideas about syllabi format. In a follow-up question, we provided a list of 23 various components that might be found on US syllabi (see appendix) and asked them to check off which ones they would add to theirs. Since the concept of a syllabus was new for the German participants, the definition of a syllabus in the syllabus toolkit had to be not only translated, but also paraphrased and explicated.

Analyses of the syllabus toolkit were conducted in two parts. First, an educational researcher performed a content analysis of the open-ended responses to the syllabus construction question and created conceptual themes among the responses. When possible, these themes borrowed from the concepts provided in the second portion of the syllabus

toolkit – the list of 23 common options on a syllabus. Then, pre- and post-test responses to both the open- and closed-ended portions of the syllabus toolkit were described through percent change scores test (i.e., percentage of respondents who listed a specific syllabus item on the post-test minus the percentage of respondents who listed that same syllabus item on the pre-test).

For the Virginia data, in terms of the five largest percent changes from the pre- to the post-test regarding the open-ended items (see figure 2), two that changed in the positive direction (i.e., had a much higher percentage of participants writing in this item on the post-test but not on the pre-test) were a) including learning goals and objectives (+37%) and b) a description of the assessments on the syllabus (+25%). Three items changed in the negative direction (i.e., a greater proportion of participants wrote in this item on the pre-test than on the post-test): descriptions on the syllabus of a) estimated student workload (-26%), b) materials needed for the course (e.g., books) (-24%), and c) course policies (-20%). Since learning-focused syllabi by definition need to include clear learning goals, objectives and assessments, these results suggest that, by the end of the Virginia seminar, participants were electing to write-in responses to the open-ended syllabus toolkit prompt that were more learning-focused and less content-focused.

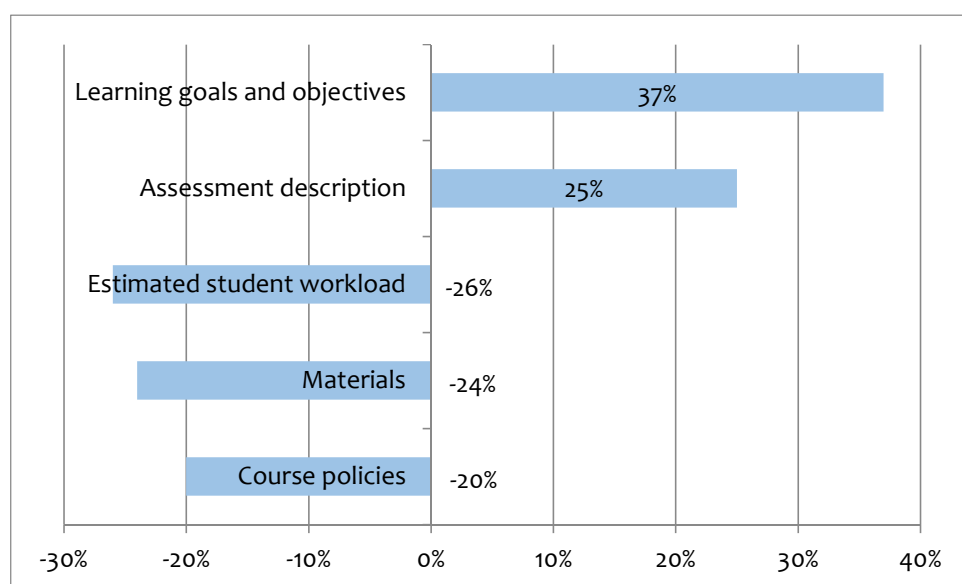


Fig. 2: Top 5 Virginia largest changes in post- versus pre-test choices of open-ended syllabus components

Similarly, the results of the pre- and post-test comparisons among responses to the close-ended portion of the syllabus toolkit (i.e., choosing among 23 common items found on a syllabus; see figure 3) showed that the Virginia participants were more likely to check options that were learning-focused on the post-test. Participants were 33% and 32% more likely to check *Assessment goals* and *Rationale for pedagogical techniques* ($\chi^2=20.55$; $df=1$; $p<.001$; $\chi^2=11.28$; $df=1$; $p<.001$), 22% and 20% more likely to check *Fostering student-student interaction* and *Fostering faculty-student interaction* ($\chi^2=16.16$; $df=1$; $p<.001$; $\chi^2=23.67$; $df=1$; $p<.001$) and 18% more likely to check *Important dates* ($\chi^2=25.47$; $df=1$; $p<.001$) respectively,

on the post-test than the pre-test.

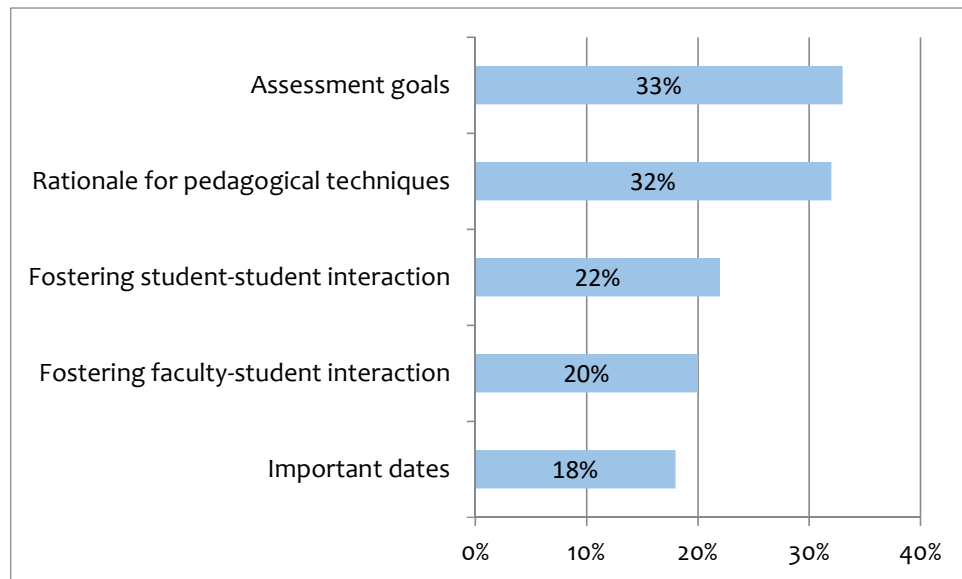


Fig. 3: Top 5 Virginia largest changes in post- versus pre-test closed-ended syllabus components

At Bielefeld U, we applied the complete survey including the syllabus toolkit for the 2014 cohort only. All 14 participants filled in the pre-test-survey, and 10 submitted the post-test-survey. All open-ended items changed in a positive direction. The five largest percent changes from the pre- to the post-test were a) including learning goals and objectives (+26%), b) adding a description of the course (+19%), c) a course calendar or schedule (+19%) and d) describing methods of instruction (+13%). Furthermore, we found a combination of components we categorized as e) requirements for major course assessments (+26%, referring to assessment description, evaluation criterion or grading procedures) (see figure 4).

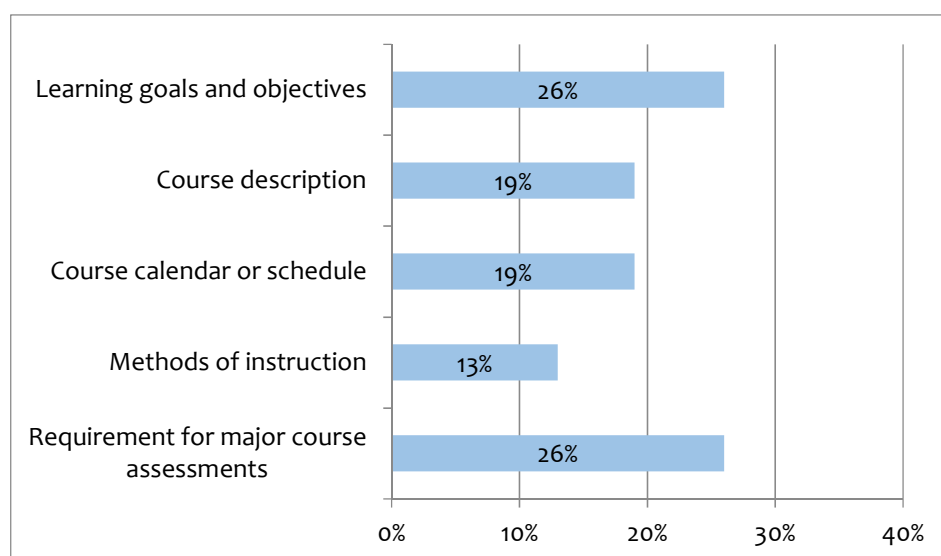


Fig. 4: Top 5 Bielefeld largest changes in post- versus pre-test choices of open-ended syllabus components

In contrast, at Bielefeld U the results of the pre- and post-test comparison among responses to the closed-ended portion of the syllabus toolkit showed little change in participant's choices. There was no difference in the number of participants checking *Basic information* (100% pre and post), and, interestingly, they were more likely to check more content-focused options like *Important dates* (+21%), *Course policies* (+14%) and *Assessment description* (+9%). An increase could also be observed with regard to the components *Course schedule* (+19%, from 79% to 90%) and *Course description* (+14%, from 86% to 100%). There were decreases in the frequency participants chose *Methods of instruction* (-31%), *Materials* (-23%) and *Course prerequisites* (-19%), also indicating a mixed picture (see figure 5). No changes were observed for items such as *Learning goals and objectives* (64% pre, 60% post) after completing the module, indicating that not all participants left convinced learning goals and objectives needed to be made explicit. On the whole, participants concentrate on those components of a syllabus they explicitly got to know during the module (e.g. via a handout listing central components of a syllabus). Chi-square non-parametric tests could not be run with the Bielefeld data, due to the small sample sizes associated with the post-test (n=10).

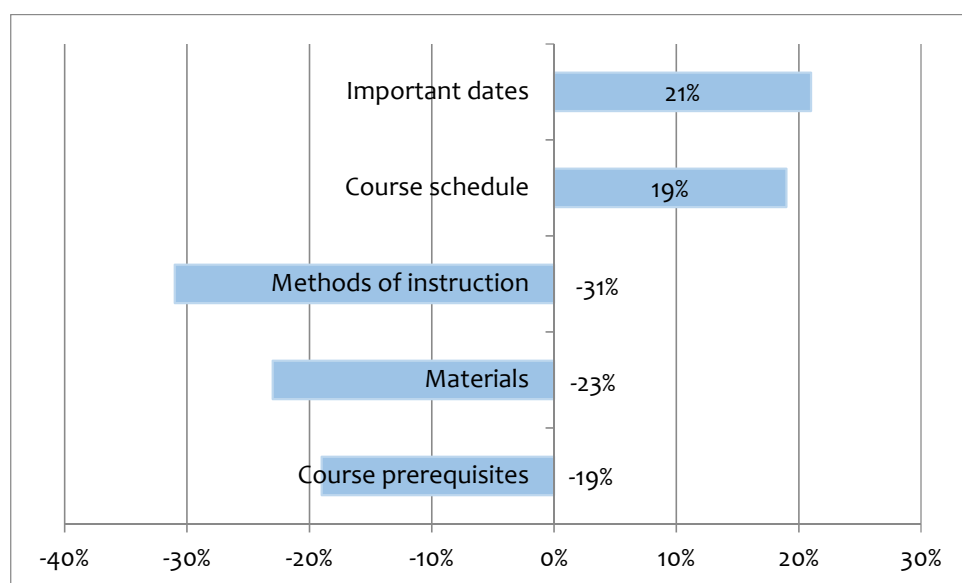


Fig. 5: Top 5 Bielefeld largest changes in post- versus pre-test closed-ended syllabus components

4 Discussion and implications for academic developers

In this article, we described how we use syllabi in a US and a German course design intervention to help instructors adopt a learning-focused approach to teaching. During both course design interventions, exemplary learning-focused syllabi and a syllabus rubric were used to inspire and guide participants in the design of their own course. To assess the effectiveness of our interventions, we used the rubric to determine the degree to which participant-created syllabi express a learning-focused design. In addition, we used a syllabus toolkit to analyze how participants go about constructing syllabi.

The results of our study indicate that both interventions were successful in moving instructors to a more learning-focused approach to teaching. They confirm findings from a

larger study at U Virginia which uses the syllabus rubric to compare 54 pre-/post-Course Design Institute (CDI) syllabi pairs (108 syllabi). This study shows the degree to which intensive course design interventions are effective in changing instructors' approaches to teaching from a content-focused to a more learning-focused paradigm (Palmer, Streifer & Williams-Duncan, 2016.)

In addition, our experiences with Virginia's pedagogy seminar and Bielefeld's certificate program also highlight the importance of considering how contextual factors may influence the design and assessment of course design interventions. A comparison between our two transatlantic case studies suggests that the effectiveness of syllabi as course design tools may be mediated by the level of familiarity with the concept.

Given US instructors' greater familiarity with the concept of the syllabus and, likely, learning-focused teaching more generally, the study's comparative trends are not surprising. Despite greater time on task, syllabi created by participants in Bielefeld's certificate program score slightly lower on our learning-focused syllabus rubric compared to syllabi created by participants in Virginia's seminar. The findings from the syllabus toolkit suggest that Virginia participants have a clearer understanding of the specific characteristics of learning-focused syllabi. The pre- and post-test comparisons show their increased preference for learning-focused features and decreased preference for content-focused features. In contrast, participants in Bielefeld's program show an increased preference for including both content-focused and learning-focused syllabus features. The fact that they are more likely to include all possible elements of a syllabus after completing the foundational module of the certificate suggests that they have been sensitized to the potential benefits of making their course design decisions explicit for their own planning purposes and for communicating their expectations with students. In addition, in keeping with Bielefeld's aim to foster learning-focused course design, participants seem to begin to see value in including learning-focused components like learning goals and objectives. We suspect that these may be indicators for an overall increase in Bielefeld U participants' appreciation of the value of pro-active communication with students.

On the whole, these findings have implications for academic developers. While US faculty today still create traditional syllabi for curriculum committees and other record keeping purposes, the new generation of instructors readily accept learning-focused syllabi as a tools for communicating with students. Academic developers in the US today can build on high levels of acceptance of learning-focused principles and interest in expressing these principles in what Bain calls a "promising syllabus" (Bain, 2004, p. 74).

In contrast, academic developers at Bielefeld U cannot build on a preexisting familiarity with the concept of the syllabus. Driven by institutional and accreditation requirements, German universities typically present their program of study through detailed, prescriptive, and technical module descriptions that focus on subject-related regulations, course topics and requirements. The *Vorlesungsverzeichnis*, on the other hand, provides students with a quick overview of academic programs and courses, similar to what course catalogues offer to American students. Although the brief entries sometimes include learning objectives and information about activities, readings, and assessments, they are typically content-focused and do not directly address students as learners.

German instructors may supplement the information provided through the *Vorlesungsverzeichnis* by giving students a schedule of topics and due dates akin to what

content-focused US syllabi provide. However, promising, learning-focused syllabi as described above are extremely rare in Germany and may be created by faculty who have spent time in other countries where such documents are becoming more and more the norm. And whereas in the US syllabi are frequently requested to evaluate teaching competence for hiring decisions, they are just recently gaining relevance on the German academic job market and for the classroom.

As a result of these contextual factors, German academic developers will likely encounter more skepticism and resistance to accepting syllabi as a useful teaching and learning tools. To maximize the benefits of using syllabi in the course design process, they will need to act as translators and allow time and space for participants to understand its function and potential value.

5 Limitations, and future research

It is important to note the limitations of our study. The data sets for both institutions are relatively small and only suggestive of trends. Also, due to our particular participant profile, it was not possible to compare syllabi before and after the intervention showing more clearly the changes in participants' design decisions.

In addition, we recognize that syllabus design is only a proxy for actual classroom practices and student learning. In itself, it is neither a measure of teaching effectiveness nor necessarily an accurate reflection of an instructor's values. However, a recent study on student perceptions of syllabi show that the document matters. Students reading learning-focused syllabi have more positive perceptions of the course and the instructor compared to those reading content-focused syllabi (Palmer, Wheeler & Aneece, forthcoming). Through a large scale classroom observation study, researchers at U Virginia are currently studying whether changes in espoused teaching values detailed in course syllabi lead to actual changes in teaching practices. Further research is also needed to investigate how changes in teaching practices influence student learning.

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Appendix

Close-ended questions of the syllabus toolkit

Please indicate the components you would use to construct a syllabus for a new course:

- Basic information (e.g. instructor name, contact info, course times, office hours, TA info)
- Materials (e.g. textbooks, course packets, equipment needed)
- Important dates (e.g. add/drop/withdraw period)
- Course description
- Methods of instruction (e.g. lecture, discussion, group work)
- Rationale for pedagogical techniques
- Course calendar or schedule
- Learning goals or objectives
- Assessment goals (e.g. purposes of assignments, description of what assessments measure)
- Assessment description (e.g. type of assignment, due date, how to submit)
- Evaluation criterion (e.g. grading rubrics)
- Grading procedures (e.g. grading scale, weighting of course components, grade appeals process)
- Course policies (e.g. attendance, due dates & late work, lab safety)
- Course prerequisites
- Estimated student workload
- Instructor biography (e.g. research interests, roles & responsibilities as teacher)
- Tips for success (e.g. study skills, exam prep, note-taking, time-management, common mistakes)
- Supplementary material (e.g. links to web resources, style manuals, past student work)
- Fostering faculty-student interaction (e.g. conversational tone, encouragement to attend office hours, elicit feedback about learning environment)
- Fostering student-student interaction (e.g. why the course uses discussion, collaboration or team projects, classroom civility)
- Statement on academic fraud
- Accommodations for students with disabilities
- Statement on students in distress

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