Review of Education: University of Fukui 2017

Conducted by Dr.Kathy M.Takayama,
Director
Center for Advancing Teaching & Learning Through Research
Northeastern University
Together with Members of the University of Fukui

福井大学 教育評価報告書 2017

ノースイースタン大学 教育学習・研究推進センター
センター長 キャシー M. タカヤマ博士をお招きして

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Preface

Mitsufumi Mayumi, M.D., Ph.D.
President
University of Fukui

In 2013, we at the University of Fukui began a journey for superior education at the international level. In doing so, we invited Dr. Kathy M. Takayama, the then-Executive Director of the Harriet W. Sheridan Center for Teaching & Learning at Brown University, one of the most prestigious universities in the U.S., to our university（She is currently at Northeastern University）. She conducted an educational observation of our university, and engaged in discussions comparing education at the University of Fukui with world standards. She has been an international consultant regarding our education since 2013, and with her advice, we have tried to provide international standards education for our students. Moreover, in 2016, we established the School of Global and Community Studies, which has adopted an international standards education system, with the idea of leading globalization at our university and within the local community. For this visit, Dr. Kathy M. Takayama visited our university for the first time in four years in order to evaluate how much progress has been made in our programs, especially regarding her previously advised educational reforms. We are grateful to the Okinawa Institute of Science and Technology Graduate University for working in collaboration with us to make this special event possible.

During her stay, Dr. Takayama gave us much valuable follow-up advice about the present situation of our university's efforts that she introduced during her last visit, such as aligning the medical education Learning Management System（LMS）and Content Management System with engineering. I am grateful to our students who actively participated in the discussions with Dr. Takayama. The summary of these discussions and advice are printed in this publication. Through these sessions, I have become more aware of how education reform can be university–centered, along with a new understanding of the importance of student-centered education reform.

In the process of Industry 4.0, Japan is going through a difficult phase with a rapidly aging population, so we need to establish a highly knowledge-based society which creates innovation and improves productivity. Higher education institutions which provide superior education, especially national universities, should play an important role.

We will invite Dr. Takayama to our university in 2019 and get further advice on how to improve our programs. We are determined to enhance educational and research functions at the University of Fukui and carry out our mission to develop highly specialized human resources and innovation creation.

学長ご挨拶

福井大学長　眞　弓　光　文

　福井大学は、国際水準での優れた学生教育を標榜し、2013 年に米国の名門ブラウン大学のハリエット W シェリデン教育学習センター長キャシー・M・タカヤマ博士（当時。現在は米国ノースイースタン大学に所属）を招聘して、本学の教育を実際に観て頂き、世界水準から見た本学の教育について議論を交わしました。タカヤマ博士にはその時以来、本学の教育に関する国際アドバイザーをお願いしていますが、この間、福井大学は博士の評価や助言等を参考に国際水準の学生教育の実施に努め、また、2015 年には本学および地域のグローバル化を牽引する学部として国際水準の教育システムを取り入れた「国際地域学部」を開設しました。今回、タカヤマ博士に 4 年ぶりに来学頂き、本学の教育、特に前回に提言頂いた教育改革項目がどう進展しているかを観て頂き、評価を頂きました。多忙なタカヤマ博士を招聘するに当たり、実現の可能性を高めるために、福井大学と 2 大学共同で評価を受けることを提案頂いた沖縄科学技術大学院大学に深謝いたします。

　タカヤマ博士には、今回の滞在中、医学部における Learning Management System（LMS）と Content Management System を連携させた医学教育における Active Learning の試み、工学部における LMS、WebClass の活用などをはじめ、前回の来学時に博士から紹介頂き、本学で採用した取り組みの現状について、様々な指摘や助言を頂きました。博士との討論に主体的に参加してくれた本学の学生諸君に感謝申し上げます。博士との討論内容や博士の助言の詳細は本文に譲りますが、博士から示された「学生中心の教育改革」という理念は、当然のことであるが故に、しかし往々にして「大学中心の教育改革」になりかねないが故に、改めてその重要性を認識した次第であります。

　第 4 次産業革命が進行する中、我が国は、少子高齢化を受けて、イノベーションを創出して生産性を向上させ得る高度知識基盤社会の成立を必要としており、優れた教育を提供できる高等教育機関、特にその中心となる国立大学の果たすべき役割は重大です。タカヤマ博士には 2019 年度に改めて来学して頂き、本学の教育の評価と助言を頂く予定でありますが、福井大学はこれからも教育・研究機能を一層高め、高度専門人材の育成とイノベーションの創出という使命を果たす所存です。

Foreword

Kathy M. Takayama, Ph.D.
Director
Center for Advancing Teaching & Learning Through Research
Northeastern University

It has been a pleasure to return to the University of Fukui to review their progress since my inaugural visit in 2013. Much has transpired across the institution, including the creation of the School of Global and Community Studies, the trial phase of a learning management system, and the implementation of problem-based learning across the curriculum. The commitment and engagement of faculty, administrators, and students is visible in the classroom, through the ways in which courses and lessons are designed, and the ongoing concerns that faculty express in relation to their desire to inspire and educate students. Faculty are willing to try new approaches, while being earnest in their awareness of the challenges that lie ahead. In this regard, I would say "bravo," because it is important to be self-critical in the interest of rigor and positive outcomes for our students. At the same time, the university is at an important juncture to continue reviewing and assessing progress as it implements high impact practices to ultimately achieve their desired student outcomes.

Particular highlights of my visit included discussions with the students of the University of Fukui. The conversations revealed their developing global understandings in relation to their ongoing introspection of their academic, cultural, and individual identities as citizens of society. As such, it is important for the faculty and administrators to consider how these important perspectives can be harnessed and connected to the curriculum, and how the university will indeed foster a collaborative, engaged community.

In the US and Canada, the UK, Europe, and Australia, universities have created "students-as-partners" initiatives whereby faculty and students collaborate in partnership on pedagogical projects to improve pedagogy and course design. This powerful model has had extraordinary impact, and cultivates strong ownership and a sense of belonging for both faculty and students. To me, the University of Fukui seems like a forerunner for Japan to integrate this model into its educational system.

I am grateful to the entire university community for welcoming me so warmly and opening up their classrooms and discussions for my visit. I look forward to the continued progress in the coming years as the institution builds on its strengths and seeks new fertile ground for its continued growth and development.

ご挨拶

ノースイースタン大学 教育学習・研究推進センター
センター長
キャシー M. タカヤマ博士

　2013年に初めて福井大学を訪問して以来、再度訪問することを楽しみにしていました。その間、福井大学は国際地域学部の設立、ＬＭＳの試行段階、ＰＢＬの施行など様々なことに取り組んできました。学部がいかにそのような取り組みを積極的に行ってきたかは、入念に計画されたコースや授業内容、教員の意欲からも明確です。また、大学では教育の質保証のため、見直しと改善に取り組んでいくことが大切です。現状に満足せず、常に新しいアプローチを試みている教員の方々は本当に素晴らしいと思います。

　今回の訪問で特に注目する部分が、福井大学の学生との懇談会でした。学生との会話の中で、学生には、学術的、文化的、そして社会の一員としてのアイデンティティに、さらなる国際理解が必要であると感じました。このように、教職員にとっても、これらの見解をいかに利用し、カリキュラム作成につなげていくか、そして大学がどのようにして地域共同社会を育成していくかが重要だと思います。

　アメリカ、カナダ、イギリス、ヨーロッパや、オーストラリアでは、大学は「パートナーとしての学生」を創り出しており、教授法や授業設計を改善するために、教員や学生が教育的事業を協力して行っています。この取り組みは、教員や学生たちに強い影響をもたらし、当事者意識を持たせ、帰属感を助長させます。そして、福井大学は、この取り組みを教育システムに融合させる日本の先駆者であると思っています。

　今回、福井大学への訪問を歓迎し、また懇談の時間を設けてくれたことを大変光栄に思います。次回の訪問時には、継続的な発展を期待するとともに、福井大学の強みを基盤に、継続した成長と発展のために、新しい想像力に富んだ分野を探していくことを楽しみにしています。

Profile

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Dr. Kathy M. Takayama

Director

Center for Advancing Teaching & Learning Through Research

Northeastern University

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Dr. Takayama received her B.S. in Biology from the Massachusetts Institute of Technology (MIT) and her Ph.D. in Biochemistry & Molecular Biology from Rutgers Medical School.

She has led an active research program in science education and the scholarship of teaching and learning, and received national and international teaching awards including the Australian Society for Microbiology David White Award for Excellence in Teaching, the Australian College of Educators Teaching Award, and the University of New South Wales Vice Chancellor's Award for Teaching Excellence.

Her work in the scholarship of teaching and learning extends across a broad spectrum, including visualizations in learning, STEM (science, technology, engineering and mathematics) education, ePortfolios and online learning, and mentorship. Dr. Takayama served as President of the International Society for the Scholarship of Teaching and Learning (ISSOTL) in 2014, and was a founding member of the society in 2004.

She serves as an International Advisor to the Board for Ireland's National Forum for the Enhancement of Teaching and Learning in Higher Education, and has served in an advisory capacity to universities throughout the US and in Europe, Japan, Singapore, Hong Kong, Latin America, and Africa.

【Northeastern University】

Founded in 1898 in Boston, Massachusetts. There are more than 20,000 students including both undergraduate and graduate students. Northeastern University is also famous as one of the leading universities of COOP education, and it has a high employment success rate. Moreover, students at Northeastern University engage in work related to their major. According to the U.S. News & World Report Ranking, it is ranked among the top 50 national universities, so Northeastern University boasts many students from both inside and outside of the United States.

ご略歴

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ノースイースタン大学 教育学習・研究推進センター

センター長

キャシー M. タカヤマ博士

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　キャシー M. タカヤマ博士は、マサチューセッツ工科大学（MIT）で生物学を専攻し、その後、ラトガース・メディカルスクール（Rutgers Medical School）で生化学・分子生物学の博士号（Ph.D.）を取得した。

　科学教育や授業実践に関する研究をリードし、オーストラリア微生物学学会デビッド・ホワイト教育賞を始め、オーストラリア教育者協会優秀教授賞、ニューサウスウェールズ大学総長賞等、国内外において数々の教育賞を受賞している。

　教授・学習の学識に関する業績は、科学・技術・工学・数学の STEM 教育、e ポートフォリオ、オンライン学習、指導者など多岐に亘っている。また、2004 年には、教授・学習の学識に関する国際学会（The International Society for the Scholarship of Teaching and Learning）の設立メンバーとなり、2014 年には、同学会の学会長を務めた。

　現在は、国際アドバイザーとして従事されており、アメリカ、ヨーロッパ、日本、シンガポール、香港、ラテンアメリカ、アフリカなど各国の大学でアドバイザーとしてご活躍されている。

ノースイースタン大学

　1898 年にマサチューセッツ州ボストンに創立された。学部、大学院を合わせて 2 万人以上の学生が在籍。COOP 教育にも力を入れていることで有名で、高い就職率を誇る。また、多くの学生が専攻に関連した職種に就いている。US ニューズ＆ワールドレポートランキング（U.S. News & World Report Ranking）ではアメリカ国内の大学のトップ 50 にも入っており、国内外から学生が集まる。

## 国際アドバイザーとしてのタカヤマ博士の本学への再訪について

理事（教育・学生担当）・副学長

中　田　隆　二

　2017年5月末の、キャシー M. タカヤマ博士（Director, Center for Advancing Teaching and Learning Through Research, Northeastern University, USA）の福井大学への再訪は、本学が、第3期中期目標・中期計画（教育の実施体制に係る中期目標を達成するための中期計画上の措置）において記した、"Institutional Research（IR）機能の活用を含め、教育の質保証システムを整備・運用するとともに、国際アドバイザー等による本学の教育全般の「国際的な水準」の検証を行い、教育の国際通用性や学位の質を保証する"という取組みの一つとして実施されたものです。タカヤマ博士は、2013年6月にも、第2期の中期目標・中期計画の取組みの一つ、国際的なベンチマーキングの一環として本学を訪れていますが、その詳細は「福井大学教育評価報告書2013」（https://www.u-fukui.ac.jp/cont_about/public/pub/reviewofeducation/ に掲載）で報告され、また、今回の再訪に至った経緯については、本誌で寺岡副学長が記されています。本稿では、今回の再訪の意義等について、私自身が考えたことを述べさせていただきます。

　前回の来訪時、タカヤマ博士には、授業等の視察や役員・教員・学生との意見交換を行うことで、本学における教育上のシステムや取組み等について検証をお願いしました。そして、いくつかの課題が指摘され、アドバイスもいただきました。指摘された課題の一つが、教学ガバナンスならびにカリキュラム等を管理・運営し、評価するシステムの不十分さです。また、それとも関連して、学生の自律的成長を促すための授業評価やカリキュラム改善のための仕組みについても、今後の課題としての指摘を受け、学習支援のための管理システム（Learning Management System；LMS）の導入、さらには大学の管理運営面への学生参加の仕組みについての助言もありました。

　本学は、第2期中期目標・中期計画において、国際通用性のある「質の高い教育」を実現することを明示し、その「内部質保証システム」としての具現化に向けた整備・改革を推進していたこともあり、タカヤマ博士のアドバイスも参考にしながら、第2期末までに、学長のガバナンスの下、教育・学生担当の副学長を長とする、全学的なPDCA機能を有する教育体制（右図参照）を整
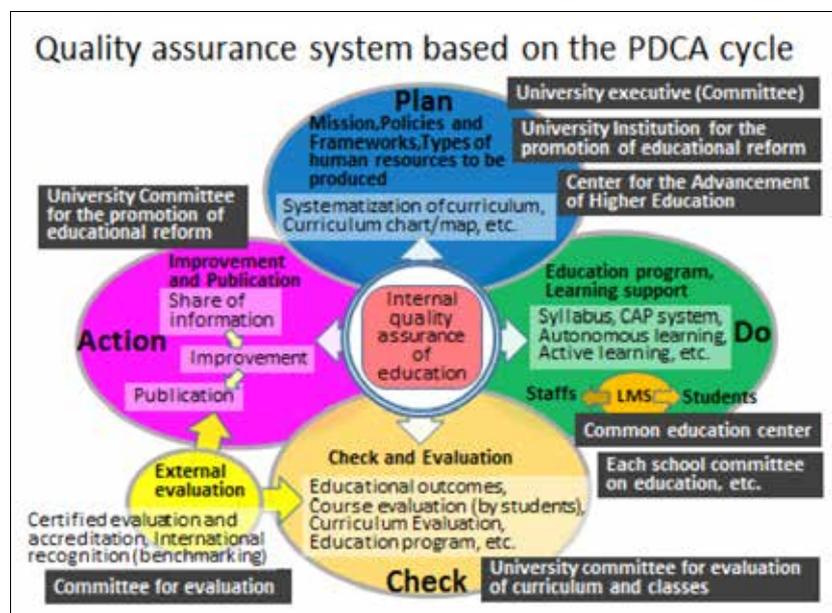
備いたしました。この管理運営体制は、平成27年度受審の大学機関別認証評価においても高く評価されたところです。しかしながら、実際には、このシステム全体を機能的に動かしつつ、教育改革を着実に進めるまでには至っていないのが現状です。特に、PDCAサイクルのCheckの過程で重要な役割を果たすことが求められる、「カリキュラム・授業評価委員会」については、まだ動かし始めたばかりで、今後は、各学部の関連する委員会と連携して、授業・カリキュラムに対する評価結果、教育成果、学生の成績状況など教育関連情報を収集・分析し（教学IR）、教育プログラムや実施体制の点検・評価を進めていくと同時に、その機能・役割についても検証していく必要があります。この種の組織の必要性については、以前、タカヤマ博士も指摘されていたのですが、今回は、時間的制約もあって、残念ながら充分に意見交換できなかったので、次の機会には、本学の実績に基づき、実質的な評価をしていただきたいと考えています。
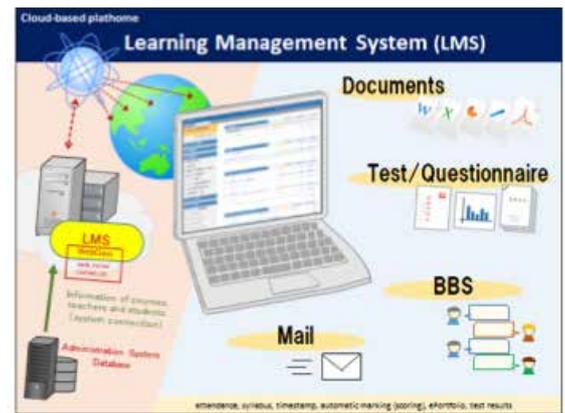
　今回私は、役員との懇談以外に「国際地域学部教員との意見交換会」と「LMSの活用について学内教員との意見交換会」の場に参加させていただきました。前者でのタカヤマ博士による「学生中心型学習エコシステムのための制度戦略」という題目での事例紹介や、後者のLMSについての議論は興味深いものでした。それぞれについての詳細が本誌に記載されているので、参考にしていただければと思います。

　ところで、博士が訪日される頃、日本の大学関係者の間で、一冊の本が話題にあがっていました。それは、米国の現役大学准教授であるアキ・ロバーツ博士（University of Wisconsin - Milwaukee）とその父親であり著名な教育社会学者でもある竹内洋氏との共著による「アメリカの大学の裏側―「世界最高水準」は危機にあるのか―」（朝日新書）という本です。大学教育の現状と問題点を赤裸々に指摘し、アメリカの大学をお手本として進みつつある、日本の大学改革について警鐘をならす内容であるとして、書評等にも取り上げられていたのですが、その中で、学長のリーダーシップによって戦略的にそのランキングをアップさせた、Northeastern Universityの元学長の業績も紹介されていました。赴任される前の話なので、博士ご自身は詳しくはご存じないようでしたが、現在、同大学に在職されているタカヤマ博士の来学の時期に、こういったNortheastern Universityの話題を耳にすることは、偶然とはいえ、タイムリーな出来事でした。

　今回のタカヤマ博士の来訪は短い期間でしたが、タイトなスケジュールの中、授業視察、役員・教員そして学生との意見交換や懇談の場において熱心に意見やアドバイスをいただき、部分的ですが、本学の教育内容や体制を見直す、非常に有意義な機会となりました。タカヤマ博士はもちろんのこと、ご協力いただいた多くの教職員、学生の皆さんにも心より感謝したいと思います。

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国際アドバイザー キャシー M. タカヤマ博士（米国ノースイースタン大学）を招聘しての教育評価

副学長 寺 岡 英 男

１．タカヤマ博士の今回の招聘について

　福井大学は、第 2 期中期目標・中期計画で国際的に通用する教育課程づくりを掲げたが、その取組のため、2012 年度から役員の主導の下、学部ごとに国際的なベンチマークを実施した。その際、その取組を単発的なものに終わらせず、ベンチマークを継続するとともに、ベンチマーク先から教員を招いての評価を行い、大学教育改善の取組に国際的なベンチマークと教育評価をサイクル的に位置づけることを企図した。その取組の一環として、本学は 2013 年にベンチマーク先の 1 つだった米国ブラウン大学から、キャシー M. タカヤマ博士を招聘し、5 日間にわたる教育についての評価をお願いした。それは報告書にまとめられている。

　その後タカヤマ博士のアドバイスを反映させた教育改革を進め、教学ガバナンスに関わっては教育改革推進機構を組織化し、そこに国際アドバイザーとして、タカヤマ博士に就任頂いた。そして、第 3 期中期目標・中期計画では再びタカヤマ博士を招聘し、国際アドバイザーによる教育評価を計画した。この実施は 2018 年度の計画であったが、2013 年のタカヤマ博士招聘の際、中心的な役割をされた当時の高梨桂治事務局長が沖縄科学技術大学院大学に移られ、そことの 2 大学共同でタカヤマ博士（ノースイースタン大学に移っておられる）を日本に招聘するこことなり、福井大学への招聘と教育評価は予定より 1 年早く 2017 年度に行われることになった。

　2 大学共同という事情とタカヤマ博士の過密なスケジュールの関係で、福井大学の滞在は前回より短縮し、今回の教育評価の対象としては、前回に提案とアドバイスを頂いた教育改革がどのように取組まれているかについて、主にその後設置された国際地域学部での教育、LMS の取組み、前回評価を頂いた学びのコミュニティづくりの取組を進める教職大学院と語学センター、そして学生との交流等を中心とするものに絞って行われた。前回は、各学部の授業の一部を参観したが、今回は日程の都合もあり、語学センター教員 2 名の授業のみの参観を行った。

２．今回のタカヤマ博士のアドバイスから学ぶもの

（１）学生中心の教育改革

　訪問の最後に役員等との懇談会を持った。そこで冒頭切り出されたのは、今回の日程の中で学生たちとの会話の機会を用意したが、そこからいろいろなことが見えてくるのではということだった。それは、「ここの学生として、自分の人生がどう変わりつつあるのかということについて聞かせてほしい」という博士の質問に対する、学生の考えについてだった。

　ではなぜ学生にこのような質問をされたのか？それは 25 日の午後に行われた国際地域学部との意見交換会でのタカヤマ博士からの基調報告の内容で納得できる。基調報告では、Gallup が Purdue 大学と共同で行った「長期にわたり成果を出すために、大学生の経験の中で最も重要なものは何か」という調査結果がまず紹介された。その調査結果では、職場でのエンゲージメントや学生の卒業後の人

生の幸福度の２つの重要な要因として、メンターの存在と体験学習があげられているという。そこで基調報告では、これらの要因につながる「学習エコシステム」として、大学は何ができるか、しなければならないかについて、話が展開された。

（２）体験学習

　上記２つの要因の１つである体験学習について、ノースイースタン大学での取組が紹介された。これは国際地域学部でPBLの取組がカリキュラムの１つの柱として取組まれていることを念頭に置いた紹介であった。ノースイースタン大学での体験学習として、企業と大学が連携し、有償で６か月間フルタイムで働くCO－OP教育という取組や社会的インパクトラボが紹介された。またPBLで学生が大学とのパートナーとして参加し、学部のコース設計や開発、プログラムを共同で作っていく取組がある。これに関連し、オーストラリアの大学での留学生が大学の留学生対象のプログラムの改善に参加する取組なども紹介された。後者の学生パートナーシップモデルは、学生がコース設計に参加することで、多様な視点が取り入れられる、設計の際の意識が高まる、さらには教員と学生との権力関係が崩れ、組織として制度改革に貢献できるというメリットを挙げている。日本の大学教育では、学生パートナーシップモデルは取組まれてはいないが、学生の参加による教育の制度的改革の方法として、今後考えるべき課題と思われる。

　また、こうした体験学習で形成されるスキルについて、アプリケーションを導入し連動させることで、身に付けるべきスキルの状況を把握し、弱い部分・伸ばすべき部分を確認できるだけでなく、体験学習をさらに開発する課題も示すことができるという。

（３）教員の教授とアクティブラーニング、そして教授法

　上記のような体験学習に関わって、それでは教員の教育はどう関わるべきか、についても議論となった。タカヤマ博士からは、学生には一定のことを教えなければならず、詰め込まなければならないという状況は変わらない。しかしそのやり方だけでは学生は対応できないので、問題意識を持たせ、小さなグループに分けて、問題を解決させる方向に持っていく。また学生も多様な学生がいて、教育がうまく受けられない学生もいる。それを個別指導ではなく、アクティブラーニングを入れてやっていく。そういう意味では、例えばPBLでもプロジェクトをつくるだけではなく、どのような教授法をもってそれを進めるかが大事であり、批判的に考えさせ、チームで活動させながら、データの蓄積と分析をし、教授法をつくりあげていく課題を指摘された。

　確かに、2012中央教育審議会答申「新たな未来を築くための大学教育の質的転換に向けて」が提起するような、学生中心の能動的な学習への転換が求められてはいても、未だに多くの大学教員は教師中心の伝達型教育の枠からは抜け切れていないし、カリキュラム編成もそうした旧来的な枠の中で行われている現状がある。これを転換するためには、転換に取組む教員が一定数いること、それらの教員がメンターとなり体制を整備すること、こうした下での学生の学習支援について、タカヤマ博士の言うように、批判的に考え問題を解決する能力を高めること、チームや小グループで問題に取組みコミュニケーション能力を高めること、これらの能力の形成についてのデータの蓄積と分析を行うことが求められる。

（ダッチ・B・J、グロー・S・E、アレン D・E 編『学生が変わるプロブレム・ベースド・ラーニング実践法』三重大学高等教育創造開発センター訳、ナカニシヤ出版、2016 参照）

そしてそのツールとして、ルーブリック評価等の活用があると思われる。タカヤマ博士からは、AAC&U のルーブリック評価の日本語版ができたことを知らせる以下のようなメールが 11 月に送られてきた。

AAC&U VALUE Rubrics Translated into Japanese

AAC&U is delighted to share the Japanese translation of the VALUE rubrics as an example of the usefulness of the rubrics for assessing student learning outcomes around the world. In the PDF document, the English version is followed by the Japanese translation. AAC&U sincerely thanks Eiji Ito from Kansai University of International Studies in Japan for the leadership that made the translation possible. The rubric translations are shared by the other three universities that participate in the Inter-University Cooperation Project（Shukutoku University, Hokuriku Gakuin University, and Kurashiki Sakuyo University）.

Rubrics are at:

http://www.aacu.org/sites/default/files/files/VALUE/JapaneseVALUERubrics.pdf

＜補足＞

国際ベンチマークの一環として、タカヤマ博士を国際アドバイザーとして招聘し、教育評価を行う取組については、第 2 期の中期目標・中期計画の評価、GGJ の評価など、この間の国のいくつかの主要評価において高く評価されている。

タカヤマ博士を招聘しての次の 3 回目の評価は、2019 年度に行われる予定である。

Meeting with Members of the Board

役員・教員等との懇談会

Meeting with Members of the Board

Date	Friday, May 26, 2017
Time	9：30 － 10：50
Place	Conference Room, 2nd floor, Administration Building

Members Present

Dr. Kathy M. Takayama（Northeastern University）
Mitsufumi Mayumi, President
Ryuji Nakata, Trustee, Vice President for Education and Student Affairs
Yoshihiro Iwai, Trustee, Vice President for Research, Industry-Academia
　Collaboration, and Social Cooperation
Takanori Ueda, Trustee, Vice President for Planning and Strategy
Hideo Teraoka, Vice President for International Affairs
Dr. Albert J. Lehner. Jr., Director, Language Center
Nobu Kzuu, Professor, Graduate School of Engineering

Interpreter	Sadayuki Nakane, Professor for Language Center

Azusa Matsuo, Staff of the Educational Affairs

Speakers

Ｔ：Dr. Kathy M. Takayama　　Ｆ：Members of the University of Fukui
Ｉ：Interpreter

Ｆ　皆さん、おはようございます。限られた時間ですが、これからラストミーティングを始めたいと思います。

　Although, it is limited short time, we have a good meeting here. First we will give Dr. Takayama acknowledgement on behalf of the university.　As shown in this scheduled timetable, in this visit Takayama-sensei has some meeting with faculty members and students. We are sorry that you could not have enough time or information in some discussion, maybe.　In this meeting, if you have further comment or introduction of your university, please tell us. At first, you will start, okay?

○今回の訪問の全体的な感想

Ｔ　I would like to thank everybody for having me visit this week.　It has been wonderful to come back and also very emotional for me to find my great grandfather's grave.　I think it was a particularly special visit this time

around.

First off, I would like to start by noting how impressed I have been even in this short time with how much I have seen you have accomplished. I know that I did not get to see everything, but from what I saw it seems like you were able to implement a lot of exciting changes and think about the directions that you have gone in since my last visit. In particular, I would like to congratulate you for the establishment of the School of Global Community Studies. I delighted in speaking to quite a few of the students there and learning from them how their experience has been so far and the ways in which they were engaging with their education and the questions that they had for me coming from a foreign country in relation to what they were curious about and what they thought their goals were in coming to Fukui.

I　ここに再度訪問することができ大変うれしく思います。さらに、曽祖父のお墓にも行くことができて良かったです。

　最初に、どのような印象を受けたかということですが、3年前と比べて、随分いろいろなことを達成されたということでうれしく思っています。さらに、もう一つは、国際地域学部ができたということで、こちらもおめでとうございます。

〇学生たちとの話の中から

T　I will start with the students and give you my impressions of my meetings with them, my conversations with them, and also I would like to share with you the questions they had for me because I think that their questions will give you insight into their thinking and what they are interested in, but also what they are worried about.

I　学生たちといろいろ話をしたので、それをご紹介したいと思います。彼らの質問から、彼らが何を考え、何に興味を持ち、何について心配しているのかなど、いろいろなことが見えてくるのではないでしょうか。

T　I think that during my conversation with the students at lunch on my first day some of the impressions that I got from the students was they were very curious all the time about trying to compare their experience as students in a Japanese university and also students at Fukui in comparison to my impression of the American universities. It was interesting because it seems like this was a recurring theme not only during the first conversation but many times with my conversations with students. For me, I am curious to know whether this is perhaps not necessarily unique to Fukui but whether Japanese university students in general are always trying to compare themselves to

other countries or if it is particular because these students are indeed very globally alert that they want to know about their counterparts in other countries. That is one question I was curious about.

I　初日の昼食の時に学生たちと話をしました。学生たちは、日本の学生とアメリカの学生を比べてどう違うのかということを知りたがっていました。これは、日本の大学の学生たちに共通することなのかどうかよく分かりません。この大学に特有のことかもしれません。これから事例を挙げたいと思います。

T　The other impression I got was that the students – well, let me start by telling you. I asked them about what they wanted to share with me and what they discovered about themselves during not only their university studies but perhaps during high school while they were preparing to go to the university. I pushed them a bit to say, "Do not tell me about success in academic achievements." I wanted to know, "what has been life changing for you as you engage in your studies here? You are in the School of Global Community Studies. What does it mean for you in your identity and what epiphanies have you had? What has really surprised you so that has changed your life and your thinking and the ways in which you are engaging?"

I　どのような経験、あるいは意見、協力ができるのかということで、話を聞きたいということだったのですが、タカヤマ先生は、成功例を言うのではなく、ここの学生として自分が一体何者なのかを知ることができたのかどうかということ、自分の人生がどう変わったのか、あるいは変わりつつあるのかということについて聞かせてほしいということを学生に言いました。

T　I am going to share with you some of their answers. The reason why I think they are interesting for us is because it tells you about perhaps some of their fears but also their expectations and what they really get inspired about and excited about in their curriculum and their education here. One person told me about feeling isolated and scared when first going abroad. In fact, several people said that they were excited about the opportunity to study abroad but they are also very worried and scared. Part of it was the fear of, "Well, am I going to fit in? The American students," if they are going to America, "have reputation for working so hard. Am I going to work hard enough?" But then they explained that the realization, the excitement that they came to was they felt that they had something to contribute. They were quite proud after engaging with other students when they went abroad and interacting with other college and university students from other countries as well that they felt great pride in representing Fukui and representing Japan. They developed a confidence in feeling

like, "Yes, I am part of this community." I would like to congratulate you because I think that these students that you have selected are very wanting to contribute. I mean, they are worried and they are excited about their studies, but there seems to be this deep desire to contribute in some way, but they are worried because they are worried about, "What can I do? What is expected of me?" so there seems to be this tension a little bit.

Ｉ 学生たちは、当然いろいろな心配もあるだろうし、いろいろな期待も持っています。例えば、アメリカへ行く、海外へ行くとなれば、非常に孤独感を感じるのではないか、怖いのではないか、あるいは、アメリカへ行けば必死になって勉強しなければいけないのではないかというようなことを思っているようです。しかし彼らは同時に、いろいろな誇りを持っています。例えば、もちろんこの福井を代表している、福井大学を代表している、あるいは日本を代表している者として、何らかの形でいろいろな貢献ができるのではないかということを考えています。これは非常に大事なことだし、立派なことだと思います。要するに、自分は何ができるのかなどということを考えながら、もちろんアメリカの大学社会、あるいは他の社会もあるでしょうけれども、そういったところに貢献したいという気持ちを持つことは非常に立派なことだと思います。

Ｔ Another student shared something really interesting with me and it gave me an idea as well. She talked about her time at University of Findlay. Again, when she first started there, she was worried because she felt that she may not fit in. She was worried about her experience as an international student, but Findlay has a program where they pair every international student with a domestic student. The pair of students works on a surface learning opportunity together. She said that that was key for her to fit in and to really take full advantage of her Findlay experience because when she was working with the Findlay student and contributing to the community she started to feel very much engaged. She started to feel not like a foreigner but a member of the Findlay community. She said that that made a big difference for her in fully embracing her study abroad experience.

I am wondering how many of your students when they do study abroad might have experienced some really interesting opportunities that might be brought back to Fukui to say, "Oh, is this something you can try here? Is this possible opportunity for doing reciprocity where if an international student comes to Fukui, how can you pair your own students with someone so that you have that kind of experience with them?" Therefore, maybe one possibility is when your students go abroad to have focus group interviews or some kind of information gathering to ask them, "What was really exciting and impressionable for you? What made a big difference?" Perhaps, some of these ideas can be adopted here.

I　もう一つの例は、フィンドレーへ行った女子学生のことです。最初は心配でしたが、フィンドレーのシステムとして、留学生とアメリカの学生がペアになって行動し、アメリカ、あるいはフィンドレーのコミュニティ社会に貢献するというものがありました。自分は留学生ではあるけれど、フィンドレーの社会の一員だと感じられるようになったということです。

　タカヤマ先生のお考えでは、彼女も言ったのですが、福井へ帰ってからそういうようなシステムをここでもつくって貢献することができるのではないかというように考えるなど、そういうアイデアを持ち帰って福井でも応用できるということは非常に良いことではないかということです。

T　I was going to talk about some of my observations with the learning management system conversation and your PBL, but should I pause for questions?

F　Could I just make an observation? The students that you were talking about were all engineering and education students not the GCS students, so I personally find that what they were telling you and asking you was pretty remarkable because their learning environment is very different from the GCS students. We often maybe do not think of the engineering students and education students thinking about global issues and study abroad and so on. Therefore, the fact that you were able to elicit from them those observations I think it is pretty remarkable about the student.

I　1日目の昼食懇談会で、グローバルハブに集まった学生というのは実は国際地域の学生は少なく、工学部や教育学部の学生がメインでした。工学部や教育の学生が、グローバルな課題や留学に関心を持っているということに驚きというか、聞いていてすごく良いことだと思いました。

T　Thank you. Well, perhaps I will segue from there into the learning management system conversation. Again, I have to say how impressed and appreciative I am of your innovation in that you were able to come up with a solution in realizing that you could not get an off the shelf LMS but you put together something that was going to work for your faculty. I think that some of the ways in which I have heard your colleagues using the learning management system is exciting, but I will say that it is a start, and also that the faculty themselves said that they realize that this is the beginning in having them be comfortable with it.

　One of the possibilities I think that you can think about moving forward with the learning management system is that in addition to having it be a very useful and valuable information exchange repository, distribution of grades, etcetera, is that in its full potential it can really create for you ways to engage students beyond the classroom.

○ LMS について

T　There has been a lot of research that has been done over the past 20 years in how universities have used LMSs to create opportunities for students to collaborate on projects outside of the classroom time but also for the instructor to have a record of the ways in which students are engaging, collaborating, understanding, or not understanding. Therefore, perhaps that is the next stage of the ways in which you are engaging with the LMS as you continue to develop it and explore its functionality.

I　LMS についても、いろいろな刷新、あるいは解決がなされていて、それは非常に良いことだと思いました。ただ、先生方も使っており、まだ最初の段階だとおっしゃっています。これの活用の仕方について、さらにどのようにするべきかということですが、それは先生方が使うというだけではなく、学生たちがクラスから出てこれを使って、情報を交換する、あるいは協同する、あるいは一緒に何かをやるというようなことへ進めていけば、さらに発展していくのではないかと。実際にそういう例がアメリカではあります。

○国際地域学部の授業を参観して

T　I think that the other observation that I had with the presentation that you shared with me on PBL and also some of the classes I observed is that your colleagues, all of you are very thoughtful in thinking about the needs of the students and the ways in which you are designing these experiences. Sometimes what happens (and this is not unique to Fukui. This happens in universities everywhere) is I think the communication piece is key because faculty might have intentions and they design something wonderful, they choose readings, they design projects but there has to be a clear articulation to the students of what the purpose of this curricular design is. What is the goal in relation to what you are going to do and experience?

　I think faculty (and I use to think this way as well) we have an assumption that when we design something wonderful and we create a syllabus and we create a course that it is going to be obvious to the student what its intended purpose is, but it is not. The communication to the student is really important in not only telling them about expectations but also helping them understand the purpose in relation to why are we engaged in project-based learning? How is this connected to the ways in which you are advancing in your degree and what kind of skills this is helping you? Therefore, it does not have to be done all the time, but I think at key points at the beginning it could be really useful.

　My conversation with the students yesterday was interesting because they were

very curious about my impression and my feedback to them on my comparison of the methods of teaching here in comparison to the methods of teaching in America. I think they would benefit and the curriculum would also benefit from thinking intentionally about communication.

I 昨日は国際地域学部の PBL のことについてプレゼンテーションをしていただきました。また、クラスの視察もしました。そういったものを通してタカヤマ先生が感じたことは、皆さんは非常に思慮深いということです。学生の必要性を十分に認識しておられ、それに対応しようとしています。そこで、鍵になるのがコミュニケーションです。これはどこの大学でも同様です。ですから、非常に良いカリキュラムをつくっても、それがどういうことを目標にしてつくられているのかということがよく分からなければ、学生はそれを有効に活用できないわけです。

　そこで、はっきりとこれはこういうようなことでつくられているのだ、それを達成するためには例えばこういうようなスキルが必要なのだというようなことを学生に知らしめるということが非常に大事だと思います。

T I was impressed with how the students yesterday were asking me questions about some of the issues that are happening in the news globally, nationally, and they were very curious. I do not know whether they have an opportunity to connect their interests in social, political, civic sort of relevance of what is happening in the outside world to what they are studying, so they wanted to know whether in America we do this, we discuss things, and how discussions or pedagogies happened in the classroom. I explained to them, well, in my field microbiology, which may not necessarily seem to be relevant in day-to-day life, I make it relevant for my students. I connect microbiology to everything in their daily life. That is my starting point for engagement to help them understand. That is a slightly different methodology from the ways in which other curriculum might be taught in other countries, but I found them to be very curious. They wanted to know what I meant. Therefore, I actually told them and I started to engage with them and asking them about what they had for breakfast and what their favorite food was. Then we went into a microbiology conversation. Therefore, the demonstration helped them understand, "Oh, okay, is that the methodology in America." There is a term for it. It is called 'active learning'. It is something that most universities now fully use all the time even in the large classes. The main reason why it is being used everywhere from all institutions from Harvard all the way to small colleges is because we have 20 years of data that shows that it works and it makes a big difference in relation to student learning, retention, grades of students, and graduation rates. Therefore, I think having that kind of data-based evidence has been very helpful in transforming institutions.

もう一つ印象に残ったことは、学生たちは国内のニュース、あるいは世界のニュースについて関心があるということです。学生は、社会的なことや政治的なことに関心があり、彼らが勉強しているものとそれらを結び付ける機会があるのかはわからないのですが、アメリカではどのようにしているのかということを知りたがっていました。タカヤマ先生の場合は、例えば、専攻しておられる微生物学と日常の生活を結び付けて考えています。そういう実生活との関係を考えさせる上で、例えば朝食は何を食べたのかを聞き、そこから微生物学がどのように自分の生活と関わっているのかを考えさせていきます。これをアクティブラーニングと呼んでいます。そういうやり方が有効であるというようなデータはとても役立ちます。

Then finally maybe I will make some comments about when I go to international conferences in pedagogy and higher education it has been interesting. Over the past five years I have noticed a trend. Initially at the international conferences we would have many Americans, of course, Canadians, Australians, UK. More recently in the past five years I have seen a lot of representation from the Asian nations. There is a huge influx of representatives, administrators, and faculty from universities in Singapore, in Hong Kong, more recently China, and then also more recently starting in Japan as well. Therefore, I think it is interesting that it seems in some of our higher education contexts where there are so many different systems and there are different structures that may seem that some of these conferences may not be relevant, but that there is relevance now. There is a lot of collaboration and other countries are now really adopting these methodologies and thinking about curricular reform. I think the driving force that the administrators are telling me is that we need to be producing graduates that can be competitive, not just in our own country or in particular discipline or workforce, but what does it mean to be competitive in the world, which means that we want to know what other universities are doing in the world and how they are being very effective in the pedagogy and the teaching. Where is the research, the evidence, and the data? I just thought I would share that observation because there has been a lot more interest now.

最近はいろいろな国際会議、特に教授法に関するような国際会議に行っています。従来はアメリカ、カナダ、オーストラリアといったところが中心でしたが、最近はアジアの国々からの代表が非常に増えています。中国、日本も増えてきています。そこには行政に関わっている人たち、あるいは教員の人たちが来るわけですが、さまざまな教授をするシステムを持っています。教授方法は違いますが、

今はだんだん協同するというようなことが出てきて、それがカリキュラムリフォームにつながってきています。教育行政に関わっている人たちが言うには、自分たちの大学でどのようなカリキュラムを組んで、どのように学生たちを教育すればいいのかということについて、現在の状況を考えると、外に出てから競争していかなければいけないわけです。特に、それは自国の中だけで競争するということではなく、グローバルに競争しなければいけないため、そのような学生を育てていかなければいけないと考えています。

質疑応答

○学習をどう組織しカリキュラムを改善するか

F　その PBL のことで昨日も言われたのですが、例えば、student-centered learning というようなことでも、日本で考えると比較的新しい課題でなかなか難しいところがあると思います。特に learning をどのようにオーガナイズするかということは結構大変なことです。ただ、昨日、後でお話を聞きましたけれども、cooperative などという取り組みは、例えばノースイースタンではかなり歴史的にあるとか。それから、昨日の話でも、コミュニケーションの取り方などは授業の中でも、いろいろアドバイスするというようなこともお聞きしました。むしろ、learning をオーガナイズする必要性、特に教員が実際にどう意識を変え、やり方を学ぶかということがとても大事なところで難しいところだろうと思います。そのあたりで少しご意見いただければと思います。

T　Okay, what you are saying is absolutely true.　In the US, I would say that it took maybe 15 years for the top research universities to come to where we are right now for all of the reasons that you described.　In the beginning there is always resistance from the faculty, from the kyoin, and the major thing is time and also perhaps the reward system, the expectation that, "Well, if I do this then it will take away from my research time."　These were all impressions, and what had to happen was for major agencies and researchers to bring evidence to demonstrate to them that the long term benefits for every aspect of the institution in moving into these models far outweighed their fears.　And their fears were unfounded because we have now accumulated many years of publications and data that show in the end you save time by completely transforming the curriculum.　The success of the students has really been high.

I　今、寺岡先生がおっしゃったようなことはアメリカでも起こりました。ただ、現在のところに来るまで 15 年間かかりました。最初は教員からの反対があって、特に時間が取られて研究ができないのではないかということでした。それに対して大事なのは、証拠を示すことです。こういうことをすることによって、長期的に見てどういう利点があるのかと。カリキュラムにしてもこのようにすればより時間がかからないといったことにもなるのではないかということで、いろいろな研究が出て、そ

のデータも取って、このようなことをやれば自分の研究時間がなくなるのではないかというような不安を取り除くというところから始めないといけません。

○アクティブラーニングの導入

T When I say 15 years I do not mean for one university. I mean the entire country, but I will share with you that, for example, places like, well, definitely my institutions, Northeastern, Brown, also Columbia as well, we have now all moved into this model. What happens is you can actually let go of the content that is taught during the class. That is the hardest part for faculty, for kyoin to let go because I think there is an idea that we must put all of this information during the jugyo or the students will not understand. However, just throwing information at students does not help them learn.

The ways in which the active learning model has changed is that the students can learn how to read the material, engage with problem solving if it is a science course or an engineering course, but during the class they are actively engaged through the professor having opportunities for the students to think about a problem if it is a physics course and then discuss in a small group right there in their chairs so that they are debating, discussing, and trying to think about how they are going to solve the problem and then as a whole group go through the process. This becomes a cycle. The data have shown and the main universities that started this model for the large science courses at least were MIT and Stanford. Now that is the only way they teach the large science courses because they found that the students were doing much better, so they have five years of data of the courses to show the performance of the students before they used this model and after they used the model.

Since then there have been papers published in our top journals in the world like Science, Cell, and Nature, and PNAS（which is one of the top journals in sciences at least）that have now started to publish papers from science education because the data are so remarkable and they have been done as a scientific study would be done. That has convinced the major research universities that they need to change and so now we have really changed our pedagogies.

I 先ほど15年と言ったのですが、これはノースイースタン大学だけのことではなく、いろいろな大学でもそういう状況になっています。要するに、学生たちには一定のことを教えなければいけないので、クラスでこれだけのことを詰め込まなければいけないというような状況は変わらないのですが、実際にそれをやっていても学生たちがスムーズにそれに対応できるとは限りません。

そこでどうしたかというと、学生たちにいろいろな問題についてどう対応させればいいのかと積極的に問題意識を持たせて、それらの問題について考えさせます。小さなグループに分けて、科学の大

きなクラスであっても、小さなグループに分けて、そして学生たちに問題を解決させるように持って
いくことによって、教育を成り立たせるということにしました。

　こういうことに関して有名な雑誌などでいろいろな論文が出て、確かにそういう効き目があるのだ
ということが証明されてきたので、今ではアメリカの有力な大学でもこういうアクティブラーニング
が取り入れられるようになりました。

T　The key for the universities has been to work at the centers for teaching and learning like my center to train faculty in learning how to do this. I think that is why now we have so many teaching and learning centers not just in America but across the world that are working closely with faculty, with departments, and schools in comprehensively helping them to transform the curriculum but also to help them transform the pedagogy and gathering data to convince the university that this is working. That third piece is really critical. The assessment and evaluation is really, really important so you actually have the evidence of the learning gain from this.

　I will say that in America one of the biggest challenges in the past 20 years has been the underrepresentation of certain groups in the sciences. In America we have populations of African-Americans or first-generation（meaning first in family to go to university）who seem to drop out of science more often than their white counterparts or those that have come from much more privileged backgrounds. In some cases in some of the hard sciences like engineering or physics there were fewer women that are staying in. It has become a huge national problem. One of the ways in which we have seen as being able to stop this decrease was to change the methodologies of teaching. That has made a big difference in being able to retain these populations that were not succeeding in STEM. It is important for university because it affected the statistics of retention and the graduation rates of our students but this methodology does not only benefit the underrepresented students. It benefits all students, so even the majority students were also doing much better.

I　アメリカにはタカヤマ先生がおられるようなティーチング＆ラーニングセンターというようなも
のがいろいろあって、そのセンター間でいろいろなやりとりをして、データを蓄積し、そのデータを
基にして大学を説得しようということをやっています。

T　'Underrepresented students' meaning those students that are fewer in numbers than the majority students. For example, in science classes there are more Caucasian students than black students, so the black students would be the underrepresented minority. So the underrepresented students were failing and they were getting much lower grades, not because they were not smart enough because

their GPAs and SATs were the same, but the methodology of teaching was not allowing them to succeed.

| ここ 20 年ぐらいのことですが、クラスの中にはいろいろな学生がいて、いわゆるマイノリティ（少数派）の学生たちがいるわけです。そういう学生たちは、学力がないということではなく、教育がうまく受けられないことがあります。

T Well, the universities have learned that they did not need to do anything for the students specifically, but by changing the curriculum and using active learning all of the students succeeded, so not just the underrepresented students but the Caucasian students, everybody, and also for women because women often were much fewer in number for the engineering courses or the physics courses. They also really started to go up.

| 基本的にはそういう学生に対して個別に指導をすることはできませんが、アクティブラーニングを取り入れることでうまくやっていくことができました。

○ PBL もプロジェクトをつくるだけでなく教授法をつくる

T Then the other approach in terms of approaches like project-based learning or other ways in which these opportunities are integrated within a course, I would recommend that it is also important not only to create these really exciting projects. The projects that I heard by yesterday sounded very exciting and it really allows the students to see the application in relation to their course, but it is also important to design the pedagogy so that the project-based learning is so they understand the ways in which they are engaging in all of these different ways of thinking, critical thinking, team work, communication, and to gather data so that the department and the faculty member can see what are the specific components that are working well and what are some of the components that might benefit from further development. Therefore, it is really thinking about how you intentionally design the pedagogy to take most advantage of something like project-based learning, which really is effective but there has to be a pedagogical strategy as well.

| PBL に関してですが、これはどういうプロジェクトをつくるのかというようなこともももちろん大事です。昨日見せていただいたところでは素晴らしいプロジェクトが用意されているということですが、そういうプロジェクトをつくるというだけでは駄目で、そこでどのような教授法を持ってそのプロジェクトを進めるのかということが大切です。学生たちに批評というか、批判的に考えさせるとい

うことです。それから、もちろんチームワークでさせるといったことをしながら、データを蓄積し、その中でどの部分がうまく機能しているのかということを見る。要するに、データ分析をしてそれを先生方がどのように活用できて、どのようにして PBL の教授法をつくっていくかということが大事だと思います。

T　Therefore, I really hope that you continue the project-based learning and continue to develop it because that has been so effective in the US in the ways in which universities have been able to be very innovative. It has also provided a wonderful opportunity for faculty to bring their research into the classroom. As appropriate, there might be ways in which a faculty member's research can be directly related to a project. I have seen great projects being developed at Northeastern where a faculty member brings some part of their research into the project-based learning assignment and the students are really excited because they also realize they are contributing to real research, but they are also working on a project that is relevant to society or industry or medicine or something. It really engages them deeply.

　The other thing that it could potentially do is break down some of the silos. On several occasions this week I heard it is the nature of universities where everybody exists in a silo because you are in your particular school or your discipline. You are not necessarily engaging cross-disciplinarily in a pedagogical way. You might have research that is interdisciplinary, but that does not necessarily realize itself in the curriculum, but project-based learning provides a great opportunity for breaking down these silos and creating interdisciplinary connections. The really exciting thing is that might also lead to interdisciplinary research. That is what happened at Northeastern where several faculty members from law and also the information sciences got together and they taught an interdisciplinary project in their course. That led to some really exciting cyber security research. I think that one of the exciting things about being at the university is the research can inform the curriculum, but the curriculum might also come back and provide exciting research opportunities. That is the advantage of being in a research university.

I　PBL は非常に良く、アメリカでも成功しているので、ぜひ続けていただきたいです。要するに、学生と教員の関わりです。先生方は自分たちの研究の一部を PBL に生かすこともできます。そういうことをやることによって、学生たちから見ると、自分も研究に貢献できるということを意識的に感じられるという点で非常に良いです。

　それから、学際的な研究を行うといっても恐らく簡単ではないわけですが、PBL をすると、そういう学際的な研究を進めることができます。例えば、法律と情報学を一緒にしてサイバーセキュリティをどうするかといったことを研究していく。ですから、カリキュラムをつくるということ自体が

自分の研究を前進させることにもなるという点で非常に良いです。

F　今、先生がおっしゃったことは非常に重要なことで、われわれも同じように考えています。例えば先生の大学では、それをマネジメントするということにかなり大きな役割を果たしていると思うのですが、どれぐらいの規模でやるのかということと、どれぐらいの強制力を持って進めているのかを教えていただきたいです。

T　Okay, that is a very good question. Each university has different kinds of sizes of centers. It also depends on the organizational structure. At Northeastern I should clarify that my center does not provide technical support for the LMS. We have a separate unit called 'academic technology' and they report to the chief information officer. They are the ones that provide faculty support for learning how to use the learning management system and other kinds of technology.

　Our center focuses on the academic side, the design of the courses, the pedagogy. Of course, we work closely with our colleagues in academic technology. We have a lot of good relationships with them because they are very related. Northeastern, as I showed you the numbers yesterday, we have 14,000 students, 6,000 graduate students, and about 700-plus faculty, maybe 800. My center serves the entire university. We have nine colleges, or you call them 'schools' here. We call them 'colleges'. My center serves the entire university but I only have a staff of seven. We are very efficient in our programs because we do not work one on one. We do provide consultations if a faculty member comes to our center, but we have a whole program. We are like a department. We have courses on how to use active learning, how to design a course. We have institutes for faculty as well and they run all year long.

I　センターの規模は学内でさまざまです。タカヤマ先生がおられるところは技術に関することは何もやっておらず、教育面、学術的な面だけをやっています。大学には九つの学部があるのですが、その全体に関わっています。スタッフは7名しかいません。いろいろなことが求められて、もちろん相談には応じるのですが、同時にセンターとしてコースも科目も出していて、例えば、どのようにコースをつくればいいのかという授業もやっています。

T　I should say the course is not a course like a 14-week course. They are workshops, so they are only one-and-a-half hours long. They are very short because we are very respectful of faculty time. "If you can use one-and-a-half hours in a workshop, we say we will save you 20 hours."

I　コースとおっしゃったので科目かと思ったのですが、そうではなくて、ワークショップのような

ことをやっておられるそうです。先生方の時間は非常に貴重なので、ワークショップの形を取っています。

〇語学センターのアカデミックサポート・センター構想

F　I think one thing we forgot to tell you. We are in the process of setting up an academic support center, which is actually a peer mentoring service that will be supervised by a few faculty members but all peer-mentoring related. As part of that, we were hoping to set up optional workshops for faculty to come and discuss pedagogical approaches to maybe introduce some new ideas, but to find out what people are actually doing and give them an opportunity to discuss and learn together about the kind of things that you are talking about.

I　一つ補足させていただきます。先生にお伝えする機会がなかったのですが、学内にアカデミックサポート・センターのようなものをつくりたいという構想があり、今、ちょうど準備を進めている段階です。目的は学生同士のピア・メンタリングなど学生のサポートで、そういうことをするような場所として準備を進めています。そこで、先生がおっしゃったような、教員向けに教授法のワークショップなども将来的に開けたらいいなと考えています。

T　That is great to hear. I am really excited that you are doing that. I might recommend, whoever is in this academic support center or the peer group, one of the most wonderful conferences to attend where you can get so many ideas and use them in your institution is the Professional and Organizational Development Network Conference（POD Network Conference）. It is the society for all teaching and learning centers in North America, in the US. The membership is about 1,000, but now it has become very international. There is a huge Japanese delegation that comes every year. They go back to their centers and use the ideas to run workshops in their centers.

F　When do they usually have it?

T　It is usually always in November. This year it has moved up a little bit. It is in October and it is being held in Montreal. It changes locations every year. Any new center – it is a very generous organization. All of us are always there to support and freely give out resources. We give all our workshop materials out as well. There is a whole Wikispace where you could download stuff, but as a society we believe in supporting each other particularly to help new centers. New centers have always found a great resource to go there, to be introduced, to make connections with other

centers, and to get resources so you do not have to start from scratch. You should not have to reinvent the wheel. There are great resources out there.

○教育改革を進める中での学生の参加

F　先ほど先生は、PBL にしても普通のクラスの授業にしても、学生が学生に例えばルーブリックでこのクラスの目的や学生の能力の育成にこれがどう関わっているかということをきちんと示しなさい、それが大事だということをおっしゃったと思います。それは同意します。加えて、恐らく先生は以前もおっしゃったと思いますが、カリキュラムのつくり方、あるいは授業の中身に学生が参加する、パートナーシップが非常に大事だとおっしゃったのですが、そういう学生の参加はノースイースタンでもかなり頻繁に行われているのですか。

T　Yes, in many ways. At Northeastern and many institutions we have had great success in the students as partners model. One recent project at Northeastern was students who took a chemistry course, the introductory chemistry course partnered with the professor who was teaching the course to revise the curriculum to make it into active learning model. Actually, it was an extracurricular activity. The student was not paid and the student was not receiving credit. They decided to do this voluntarily, but other institutions might provide them with partial credit or sometimes there is some money for student work. There were two students and they really gave feedback to the professor on what the difficult parts of the course were that were not taught as clearly. Then the student worked with the professor to think of ideas to create active learning. Now they are teaching the new model of the course and gathering data to show the professor that it is working.

I　学生参加の一例としては、化学の学生がどのようにカリキュラムを直せばいいのかということに貢献しました。これに関してはよく分かりませんが、学生たちはボランティアでそういうことをやります。場合によっては単位を部分的にもらったり、少しお金をもらったりしてやることもありますが、基本的にはボランティアとして参加します。化学の科目では、二人の学生が教員にフィードバックをしました。どういうところが分かりにくかったというようなことを知らせて、新しいアクティブラーニングのモデルをつくり出しました。

T　There is another example in students as partners where the students were involved in one of the centers which is called the Social Impact Lab. This organization teaches as part of the course, the curriculum, active engagement in civic and social community service and engagement. Therefore, the students are taking a course but they are able to apply theory to practice in the context of the course. The course is working very

closely in partnership with the community and they are having real impact on some of the local community challenges in the city of Boston. It is an extraordinary experience with the students. The students learn much more than reading a textbook and they can see how they apply theory. They understand all of the complexities of doing this kind of work, so that is another model.

Ｉ　学生参加のもう一つの例が、社会的インパクトラボです。そこで学生たちは自分たちが学んだ理論をどのようにして実践に移すことができるかを学びます。このコースでは、ボストンのある地域と深く関わり、課題解決に取り組むことでその地域に大きな影響を与えます。これは学生にとって素晴らしい経験です。学生は教科書を読むよりも多くを学び、理論が実践に応用されることも実感できます。これも１つの例で、学生たちはこのような取り組みを行うことで、物事の複雑さを理解することができると思います。

○学生からの教育評価

Ｆ　Last time when I met you I asked you that, although I thought it is very important to improve the teaching ability of teachers, the judgment from students is very important, but it is very difficult. At that time you told me that the questionnaire is very important. What kind of questions do you prepare for the students? In a book that I read recently it is written that even in the United States the students have become more, let us say, a customer, a very important customer for the university. Therefore, many teachers are afraid of the claims from the student that this teacher should give me higher, something higher hyoka like that. Therefore, the bargain of hyoka, tan'i, or such is going on in the United States. I am very afraid maybe the same thing may happen in Japan too. What should we do for such problem?

Ｔ　That is an excellent question and that is something that is being talked about all the time. I think that one of the most important points（and I know that you guys have put together a very thoughtful feedback survey）is many universities have had to change their surveys because the survey questions were not asking students about the impact of the teaching. The phrasing of the question is really important because if the questions are asked as a customer service survey then there is a tendency for students to actually perhaps rate a professor low if

they feel that they are not getting the grade that they want to. There has been quite a bit of research（and I think I did mention the learning gains survey, the SALG, when I was here last time）that has used psychometrics and assessment research to show when you word a question, so the question is not asking for opinion or satisfaction, but the gain in learning in relation to a particular approach to teaching. Then the person is taken out of it. It is, "In what ways was your learning enhanced by this?" or "Were your problem-solving skills increased?" That really changes the ways in which students will respond.

However, your point is very important because that should not be the only measurement of teaching effectiveness. In the best-case scenario there should be triangulation where a survey is combined with other forms of evidence. The other forms of evidence, if we think about what the best scenario would be, would be teaching observation. What we call in the US now, for most universities for promotion and/or tenure, a professor is expected to write a teaching statement. It is not that long, just a couple of pages, but it provides a narrative in, "Here are my efforts in relation to the information I have." We should not penalize a professor because they try something innovative because what happens oftentimes the first time you try a new approach then it is not perfect yet and there might be flaws. If they get penalized because something did not go right they will never try it again. The professor should be given the opportunity to say, "I tried this new active learning approach, and here are the ways in which it was successful but I did not think about this, and so next time, now that I have some more information, this is what I am going to do." That provides the full picture.

I might also recommend to you the Royal Academy of Engineering from Britain commissioned in international group to come up with recommendations on how you measure teaching quality. They came up with a really excellent set of ideas and ways in which you gather information that gives you that full picture. There are several universities that are trying it right now, implementing those recommendations for promotion and tenure. National University of Singapore is one. I think The University of British Columbia is another one, and I forgot the third one. Even though it is in the engineers it applies to all disciplines. I absolutely agree with what you said about the danger and the fear.

先生がおっしゃるようなことは当然だと思います。調査の起こし方についても、例えば、学生の満足度だけを測るというのでは駄目で、例えば、カリキュラムを変えるインパクトを持っているような質問に変えていくべきです。学生たちのためにどういうことが良かったのか、問題を解決するためになったのかというふうに、調査する内容も変えつつあります。

　教員たちの評価に関しては、そのようなサーベイで評価することもあり得ますが、実際に教えているところを見てみないとよく分からないということもあります。教員が何か新しいことをやろうとすると、必ずしもそれがうまくいくとは限りません。だから、その教員が良くなかったのではないかというような批判が出ますが、そういう場合に何らかの形で罰を与えるというようなことはしてはいけません。教員には改革のチャンスを与えていかなければなりません。

　イギリスの Royal Academy of Engineers という協会がありますが、教員の教育の質の測り方に関するデータを出したということで、今、いくつかの大学がその評価を使って改革を起こしつつあります。一つ目がシンガポール大学です。二つ目がカナダのブリティッシュコロンビア大学です。それから、三つ目は忘れたとおっしゃっていたと思いますが、そういったものも参考にするといいのではないでしょうか。

F　Thank you for your comment on our education activities and we will continue to move further efforts to raise the educational level of our university or university ranking level using your opinion as reference. Lastly, we hope you will have good trip after the university. Thank you very much.

T　Thank you very much.

Lunch Meeting with Bunkyo Campus Students

文京キャンパスの学生との昼食懇談会

Lunch Meeting with Bunkyo Campus Students

Date	Wednesday, May 24, 2017
Time	11：30 － 13：30
Place	Global Hub, Language Center

Members Present

Dr. Kathy M. Takayama（Northeastern University）
Students of the University of Fukui

Speakers

T：Dr. Kathy M. Takayama　　F：Students of the University of Fukui

T　Nice to meet you.

　　This is my second time to visit to Fukui and I'm really excited to be here. The reason why I made the connection 4 years ago was that Teraoka sensei was part of this initiative back in 2013 or 2012 where a group was looking at models in America, the way in which educational reform might be taking place at the university level, and what American universities are doing to make the curriculum better, to make the teaching better, and what the programs look like. And I would say that is an interesting question to ask because in America every university is different. I mean they are just so different from each other. There is no one kind of university and it's because of the American higher education system. It's not a government system. Most of them are either private or they are state universities. And so they（Teraoka sensei and others）embarked upon this mission at a time when I was a professor at Brown University. Brown is in Providence, Rhode Island which is one hour south of Boston. It's a pretty old university, and was founded in the 1700's. And it's one of the Ivy League institutions in America. And so, they came and visited me at Brown because I was also directing a teaching-learning center. And in America what teaching-learning centers do is they work across the institution to enhance the curriculum, to enhance the students' experience, and to think about how we can make our courses innovative and how we help professors to teach better. For those of you that are involved in studying education you might think that's strange thing to do, but you have to remember that my background is in biochemistry and molecular biology. When you get a Ph.D. in biochemistry you're not getting a Ph.D. in teaching, right? You're just a getting Ph.D. in biochemistry. So in universities in America, the teaching can be quite variable, not all professors are very exciting in the classroom. And not all professors are using the

best methods that are informed by cognitive sciences. So we work at the university level for the professors who are Ph.Ds. in biochemistry, physics, we think about how the we can help them improve their teaching. And so when they came and visited me at Brown, they said that there are some interesting things happening at Brown because Brown was a very student-centered institution. What I mean by student-centered is we always think about the students: Whenever we are designing a course, whenever we are thinking about the university or what the university party is, we always think about the students. And that means everything we're doing is in relation to students' development. So they invited me to come to Fukui to talk to everyone here. I had a great visit with the students back then as well, talking about faculty and learning about Fukui's mission and the ways you were designing your courses and your curriculum here. I was really excited to do that because what I want to let you all know, and I know that you know many, many years ago, I was an undergraduate student too, and I remember that when you are an undergraduate student you are not worried about institutional administration, right? You're just thinking about what you are doing, your activities, your friends, getting a job, projects you are working on, when is your next assignment due. But university really is for anyone whose⋯ How many of you have taken biology at some point in your life? If you took a biology class in middle school or high school, you may remember about evolution and ecosystems and how they continue to change, and I think you could say that a university is an ecosystem because it's never going to remain the same, right? It has to respond to where our world is going, where the global world is going, where the jobs are going. And, who are students? And what are the ways in which students— whether they are domestic or international— are representing the ways in which we as a university are trying to prepare our students for tomorrow. So in that respect I was excited to see what was happening here, and I had many really great conversations that taught me about what you know, what everyone is thinking about, whether from the president through to deans, faculty and students, and who you are, what your desires are, what you want to become, and also what your strengths are, your identity. So from those conversations, I'm coming now in 2017. I'm excited to see that there have been some really exciting innovations and initiatives that have been developed. I mean the School of Global and Community Studies is something that you know happened since then. And so I'm back here because I wanted to hear some more about where are you now 2017.

I was born and raised in New York City. I'm a New Yorker and my parents immigrated to the U.S. from Japan, but I've never lived in Japan. I can speak Japanese okay, I can understand Japanese, but I'm most comfortable speaking in English and I speak a little bit French as well.

　　And I was the professor of microbiology and molecular biology for many years in Australia. I lived in Australia for 13 years and I was a professor there. I had a lab. I had graduate students, but I was always interested in education. And I was always interested in my students. And so, I worked in my previous university in Australia, but also I started to collaborate with universities in America to see what we can do to make the teaching of science better, because the teaching of science was very bad globally. And so we wanted to say "What if we actually did some research to get some data about the fact that our teaching methods really are ineffective?" Because as a scientist I know how to do an experiment. I know what data looks like, and I know how to do an investigation if I want to show evidence to prove something. But we don't always have that in higher education because what's happening in the courses in universities is that we don't always use the data to say whether teaching really results in student learning, and I'm not talking about individuality. I'm talking about a university structure. So I started to get more and more involved in consulting and working with the administration to say let's improve science education. In the U.S. it is a big problem because we have a decreasing number of scientists because everyone is dropping out of science. People are dropping out of science because the teaching is not very effective. The students don't feel like it's an exciting environment to be in. And so they feel like there isn't any community, and sometimes they think that science is about learning facts and they don't really get to enjoy the delightful aspect of science. I became scientist because I think microbiology is the answer to everything. And it's exciting because I can live microbiology, like from the moment I wake up in the morning. Everything I'm looking at in the world is through a microbiological lens. You have a symbiotic relationship with all the bacteria in your body. If the bacteria were not in your body, you'd be dead, okay? That's really exciting to me. But that's not the way microbiology's taught in the school. It's taught as a very boring subject. So that was the start of my mission and I got more and more involved in working with institutions, with the government, with different groups, saying let's improve education at least in the sciences and then eventually switch fields. I decided to go back to America from Australia to start a whole new career, to say how I can work with universities to really sort of think about a whole ecosystems approach to focus on the student experience. So I'm interested in understanding how Fukui is thinking about preparing graduates for the year 2030. I am at North Eastern University now. And North Eastern is very concerned about the students of 2025 and 2030 because we are completely changing our university to think about whole person development. We have students majoring in different fields: biochemistry, engineering and English but we also want to know who is the person that we're developing, so when we are at

North Eastern, we are thinking about students' civic engagement, their well-being, and problem solving, and communication, and thinking about global learning, and what does that look like because it's important that we have to think about our universities as not just being in Boston but being part of the world. One of the most exciting conversations I had in 2013 was when I met with the students and I learned about all the hobbies that everybody had—all the clubs that everyone said they belonged to. And there was some really innovative, exciting stuff happening. But it was happening outside of the classroom. And I thought how do you capture and bottle it? And I say this is learning. Even if you are in a club or you are doing volunteer service. There is some real lifelong learning happening there. And so how can an institution capture··· that is to say, we should really encourage that kind of learning. When you do job hunting, it's not enough just to say I learned calculus really well or I know the metabolic cycle. But it's important to say "I'm working in a team," and "I'm a really great collaborator," and how I am thinking about communicating with different groups. So I think that one of the exciting aspects of the creation of the School of Global and Community Studies is to acknowledge that we really need to be thinking about community engagement and what does it mean to be a global learner. What does it mean when you go out in the world and when you leave Fukui to say, "well, what is the contribution that I'm making?" And it doesn't have to be to the whole world. Maybe it's to your local society or to your workplace. But also what does it mean for you to think about your development? You are not finished developing just because you graduated from university. So how are you going to continue to develop yourself? And how do you know what you need to go out and seek? So, I want to hear from you guys. What is that you want to do? What does the university need to do for you to prepare you for this world? What do you think? What are the really life changing lessons that you are learning outside of the classroom? Or maybe there're something life changing that you learned in the classroom. But I would love to hear about what has impacted you.

F　Since I entered this university, I always visit the Global Hub because I could see a bunch of different people from different backgrounds, such as different nationalities and different cultures. Actually I first came here just to speak in English with them to improve my speaking skills. But I realize that what I can really do here is to meet those students who are all proud of their own cultures and appreciate their lifestyles or everything that they already have. So that made me realize I want to be more confident in myself as a Japanese. So that's changed my thinking. After I started studying in the States, even though I felt some inferiority when I was with domestic students or other international students, I always tried to figure out how I can play my

role as a Japanese.

T　That's great. You first thought you were coming here to really learn how to speak English better than before. But that was just, if I'm saying it correctly, English speaking became a vehicle. It wasn't the end, but English became a vehicle for you to connect with other people. So you were learning about others' cultures and what they were proud of and what they were bringing to this community, but then it went full cycle because they made you be aware of what it means to be that when engaging with other people. There's an English word called "reciprocity" and reciprocity means give and take. And this mutual respect and feeling of connection and collaboration, and I think what I hear you saying is that by initially coming to engage in English conversation you developed a form of reciprocity and found a relation to what it means to culturally contribute, and I think that's really great because that representative spirit is what it means to be a global citizen. So, thank you. Any other thoughts?

F　When I was a high school student, my family was invited to go to Mie prefecture with an American family. It was the first time for me to talk with American people in real life. What I could do was just only greetings. Just only "how are you?" "I'm good." And there was nothing else I could do. I was not able to listen to what they were talking about, and I felt I was isolated. Really isolated. That changed my perspective completely. After that, I became interested in English. I really hated English when I was a high school student, and I couldn't get a high score on the English exam. I really hated talking with foreigners, but after what happened, I just began to communicate with foreigners. I looked for people who are interested in Japan on the website and I started to practice speaking English on skype, etc. Without that experience, I wouldn't be here, and it also encouraged me to study English much more than ever. As the other student said, I could learn so many things from learning English, such as being confident as a Japanese. I also needed to know about Japan and what I should do as Japanese person in global society. I'm now majoring in biochemistry, and my future dream is to become a scientist in foreign country, and I don't want lose my identity as a Japanese. I'm not going to be a linguist in the future, but learning foreign language is a good opportunity for everyone to think about what they can do as citizen of their own country.

T　Thank you. From engaging and being able to communicate in English, you learn more about your own identities as a Japanese, what it means to contribute as a global citizen. What does it mean to be a Japanese biochemist? And I think that's really beautiful

because when I was a graduate student, my Ph.D. supervisor had many Japanese coming into the laboratory from Japan. It was interesting for me as a "Nisei" to see these Japanese scientists come and represent different aspects of what it means to be a Japanese biochemist. And I made lifelong friendships, and they are all back in Japan now and they are working in different areas. One of them is in Riken Brain Science Institute, one of them works for Yakult, but I really appreciate it when I met… when a colleague comes from another country and gives you a kind of a cultural insight into the ways in which we could all be able to engage across countries to help biochemistry. Because you are right! We are not linguists, but we are thinking collaboratively together in a laboratory. But it's important for us to be able to communicate and to also have empathy for one another as well. So I think it's amazing that you guys are thinking about this right now because it's so important. So, thank you. Any other interesting insights.

F   When I was a freshman, I was doing a part time job at a restaurant. The restaurant owner was a very funny person and he runs the restaurant very well. He made the restaurant very popular so I respect him, but I was very surprised when I was told that he didn't study in university, and he is a high school graduate. Since when I was a high school student, I had a stereotype that studying is the best key to be successful. He may be a high school graduate, but he was successful in his business. That was very surprising for me.

T   So how has that influenced the way in which you're studying right now and the way in which you're thinking about your career?

F   It had a very big impact on me. I thought I have to challenge myself [to do]many things, and I applied for many kinds of part time jobs such as organizing an event for children as a staff member. It made me have more courage to try new things.

T   Thank you. That's great. I think I know what you are describing, again seeing that to be the definition of success. It is not equal to academic success. So what does it mean to really challenge yourself overtime? What does it mean to think about developing skills that are not only about studying skills and learning a discipline and then how do you seek… how do you look for these kind of lessons all the time right? Thank you. Any other stories?

F   I always like anime so I started to watch them in Japanese at first, and then actually

started studying Japanese as a hobby and that was the first time to start studying because it was fun. So before that I studied German, but it was always like "Oh, I have to go to a class again." and I don't understand anything. But Japanese was different. So I spent time studying because it was fun for me, and now I'm in Japan. It shows how it changed my life because studying Japanese has never been boring. It always interesting when you like it and for me learning language is same as a hobby. Before I came to Japan, I also studied Italian as a hobby. I noticed that I don't have to separate them. I just keep studying something because I'm interested in it, and it doesn't have to be as stressful as school is.

T That's great. So, you remind me of a conversation I had a number of years ago with some colleagues of mine. They were… one was a professor of English literature and another was a professor of biology, like myself, and the other person was professor of law, and we were just having a conversation at a conference one day. And we realized that we all became professors because we loved what we are doing. And it was kind of like your realization that you know studying could be really enjoyable and you don't have to suffer. And so for us, what we enjoyed was teaching and our research for us was a hobby. It was what we loved to do from the first. You know, I couldn't wait to get to work because it wasn't work right?

  It's like I couldn't wait to get back to the playground. I couldn't wait to go see what my experiment was going to look like, and I think the challenge for higher education is sometimes it doesn't feel that way because it feels like here's play, here's study, or here's play and here's work, but it is not the same thing. And so we start to say what could it look like, because basically if we made a graph, right and this is {pointing to a graph}（グラフを描いている）… that's play, right? The value of play, playing, play time. And that's time as in years in school, so what happens when you are really little, right? When you were, you know, before you were a teen, right? Play is up here and time is up here. You are young and the value of play is up here. But then the older you get as you go to school the value play of goes down and you hit rock bottom. And we decided rock bottom around here, is around here—university— and then, if you survive this, it starts to come back up again. And we were over here, we were professors when we were here because our work was our play, and we said there is a big problem. There's a big problem if in high school or university, students are down here, because if study is not play then that defeats the whole purpose of what we are trying to do In education. So we decided we wanted move this up, to say what does it mean to change the university so that play comes up here. What does it mean when you say you are not separating your studies from feeling like this, so engaged. It doesn't mean that

that's you want to become. We are not saying you must become an English professor or you must become a biology professor but what does it mean if you were in my classroom you were deeply engaged, and it feels like play and you just keep on asking questions because you are really curious and not because you are trying to study for a test? So I guess I··· you know, in an ideal world that would be great, right? We can start to do that, so what does it mean for you in your courses right now in your curriculum? What do you think will happen if you started··· if we can move this up?

F   Less stress, more results?

T   What do you mean by that?

F   Well, It'd be so stressful to go to classrooms and study if there are just classes that you decided "okay, I will study but I don't want to know what I'm studying because it's so boring and I don't want it to be in my brain." But if we started to enjoy more what we are studying, probably we will be more successful. Studying it, for using it, so there will be more [better] results.

T   And what do you mean when you are saying stressful? What is driving the stress? Is it grades?

F   Yes, good grades and good results.

F   I agree with her idea. I'm majoring in biochemistry. If we are not interested in those areas we cannot survive studying, so I think with less stress we can get much higher results. For me, studying English is not studying at all. Studying English is one of my hobbies. That's the reason why I was able to keep studying English for a long time. The students, at university, we need to specify what we are doing and what fields we are interested in. We have to survive the entrance examination in order to get into a university. That's really hard. So I think if the students survived the examination, there must be reasons why they wanted to be here. In my opinion, strictly speaking, if there is a university student who is not interested in a subject that he is studying right now, he needs to quit university. It's just a waste of time, because that doesn't help him to make his own future bright at all.

T   It's hard, I think. It's not just here, but it's a global situation or many students go to university but they don't really know why and what passion is. Or sometimes they

got in to a university and they find a passion which is an unhappy ending, right? But it's, I think, the pressure to get in, is true everywhere and the pressure to succeed and keep going, you know? In America, we have this movement that's growing called "students as partners." So, students as partners meaning not students and students being partners, but the university is creating programs where students partner with a faculty member on some kind of initiative, some program to make changes for something exciting happening at the university. And some models have⋯ and they arrange it as a kind of project, so one example is that some universities, not just in the U.S. but also in the U.K. in Europe and Australia. So what they do is a student might partner with a professor to redesign a course and in this case maybe the student was in the professor's course. And the student⋯ and the professor wants to know how can I make the course more exciting, how can I make this course more effective so the students are really learning? Make it more engaging? So let's make it, you know more interesting, but also help students really learn. So a student becomes a partner with a professor to redo the whole course. And student is a valuable partner because the student took the course before that, and they can give the professor good feedback and say: "Okay. So you know for this lecture it was hard to understand and this is the part that we didn't understand, so let's think about this." That's become a very, very good model for course improvement and there's been some great change happening. In other institutions, students have partners⋯ So there's one institution in Australia where they wanted to understand international students' experiences. So they created the Students as Partners Project where the students worked together with the university to think about how to improve international students' experiences, and it resulted in creating orientation program changes, and they created more interactions between domestic and international students. These were really integrated collaborative projects which very much affected and improved international students' experiences. And those ways ⋯ the whole idea of students as partners is really powerful because now as student, you feel like you are part of the university and you are contributing to the university in a very, very effective way. And students' voices⋯there are conferences now. There are universities across the world sharing what they are doing in relation to students as partners. So I'd love to hear some of your ideas, and you know if you can imagine "students as partners" here, what do you imagine it could look like? What might be helpful do you think? How might you contribute your student voice?

F　This is not direct answer but can I talk about my experience in the States?

T　Sure!

F   When I was in the States, there was an office called "Buford Center". The people at the office work on contributing to the diversity on campus. So they were focusing not only international students but also engagement with the local community. One of the programs they were offering was that one international student and one domestic student work as a pair and then go out to the local community, such as to nursing homes or Habitat for Humanity, and they work there for about two hours at one time. And it happens six times in a semester. I was one of the members in the program throughout the year and then I became really close with domestic students through that program, and that experience made me more confident to get close to domestic students. So that was one of the great experiences I had. And that was actually offered by the university office, so I think that program is really successful in making international students feel they are participating in university life. And also for domestic students to have a broader view point.

T   Was this as a part of a course or was it a volunteer service?

F   Yeah, it's more like volunteer service. It's outside of the classroom. I think that's not only between domestic students, and not only about cultural differences but also going out to the local community, so there are many variables happening there. So I think that was interesting.

T   Thank you. Any other thought or ideas?

F   So, in my course, our professors is so kind to the students. They always take our ideas and they accept them, too. And they don't force their idea on the students and they find the good part in each student. With their attitude, I can learn English and I feel that I want to study more.

T   So this is collaborative respect in the classroom. Any other ideas or thoughts?

F   I think it's good to have a place like the Global Hub. It's so cool to get together with other people and talk in this kind of free space. Then you can just chill and spend time with other people here. I feel this is something we should have.

T   So how do you use this space? I mean, do you have events here?

F   Yeah, we have events about twice a month. We have seasonal events and those are

biggest events in a year. Other than events, still many people are visiting here just to meet their friends or just for studying, and spending their break time.

T   That's great. I'm happy to talk about anything else. You know do you have any other ideas, thoughts or questions? Or you can ask me anything about universities in America, life in America.

F   I am a student of the Global and Community Studies. And now I am really struggling because when I entered this faculty I liked English and I liked to talk with foreign people. Last year, I enjoyed studying a lot not only in classes but also doing volunteer work. But now I'm really struggling because studies are becoming more specific such as globalization, economy, etc. Although I was interested in that field before and I wanted to focus on studying a lot, now I found it's very hard to study and there are too many assignments and I'm very worried. One of my friends said that we are suffering from many assignments but American students have this amount of work every day and are working hard, so when we go study abroad next year, we should work more. But I can't imagine how I can survive, because I'm already struggling. So I want to know if American students are really working hard like this for four years.

T   Can you tell me when you say "hard work", can you describe more details?

F   We had to write an essay of 1,000 words which is about global economy. It was hard to find a topic. We also had to prepare a presentation for today, and also we are taking linguistic classes, and some of us are taking philosophy class, too. And for a project-based learning class, we go on a field trip and have to write learning journals and for every class we have reading about three to seven pages, which is about immigration, the global economy and so on.

T   So you are saying the workload is about the how many classes are you taking?

F   Ten.

T   Ten classes. You mean once a week?

F   No, reading and writing classes are twice a week.

T   And then for every class you have to write a 1,000 word essay?

F   No, just for writing class but we have many readings in English.

T   How many pages a week do you think you read?

F   5 pages or more.

T   5 pages or 5 chapters?

F   One class is about 3 to 6 pages every day. I think.

T   3 to 6 pages? Per class? If it's 10 classes that means 30 pages per week?

F   Maybe. For the project-based learning we have to write learning journals every week. We also have to write about the comparison of the previous readings and we had a quiz yesterday.

T   So how many hours a day do you have to study every day? How many hours?

F   I have less classes than them because I have to study Japanese.

T   Right. For the rest of you how many hours a day do you have to study to keep up with everything? How many everyday? How many hours are you in class?

F   Each class is like for 90 minutes.

T   Maybe 3 or 4 classes on Monday. Then how many hours do you study that day?

F   In my case, right now I am a senior so I'm only doing research. I also want to get a license about architecture, and the exam is in July, so now I'm studying about 4 or 5 hours in a day.

T   So do you think you are studying more than when you were in high school preparing for university?

F   Yes.

F I think I need to study more and prepare for classes more. So when I consider that I should study infinitely.

T Yeah. In Fukui University, is there a course for first year students to learn how to learn in university? Is there such a course? In America, many universities have what's called it's a first year course. Every first year student takes it. And it's about preparing how you to be a university student. So it's taught as a seminar. It teaches you how to study effectively. It also helps you sort of manage your time. And it also helps you acculturate to the university to introduce you to all of the different, you know, support systems. It also for some students, because in America different students came from different high school backgrounds so some students may not read as quickly or they may not know how to do what we called cross reading, so you know if you are reading literature then there're different ways of reading, right?

Sometimes you read quickly because you just trying pull out the big ideas, but sometimes you have to do close reading because you are doing analysis. So you are writing notes, and in some high schools they teach you to do that really, well effectively, but other high schools, they don't, so [in the university course] they teach you how to do close reading, they teach you the writing skills and how to use time effectively. And so it's called "University 101" in some classes, in some universities but it's an introductory course that all first year students take. So that they really know how to be successful in university, but you don't have any?

F There is a class called Introduction to College Life. It is about how to use the facilities on the campus or something like that. It's not focusing on how to be successful studying or about academic matters, so it's kind of different from the one you mentioned.

T I see. I wonder that if something like that might be useful here because… and these different universities in America have different versions of it… but, and it's not just someone saying "okay, this is how you must study," but it's very collaborative, so the students are in sitting in a lecture hall and you have discussions with other students. Often times there is an interesting… and there are different sections of the course and so they are taught by many professors. And each sections is very small. There are no big classes. But you might …and everyone is invited to bring in something from another class that they are working on as well. And so there's a lot of collaboration and lots of discussion and it's an interesting model. I've seen different models at different institutions. I have two daughters, a younger daughter who is about to start university so she is going to be in her first year this fall, and her university, they have an

interesting model. It's called first year seminar. And what they do there is in a seminar class, and each professor teaches something that they are passionate about. Like, I would teach microbiology. And but in teaching what they are passionate about, they teach how to study so they invite them to engage in this course. For example… they might say "Now if you were to a close reading on this, this what it would look like." Or "How are you going to do a presentation?" And so, because the teacher, the professor is teaching something they're interested in, they're passionate about, it is a very engaged, exciting class. So that model is a trend. But, I feel like even if Fukui doesn't have a course like that, maybe there is something that this group, here in this space, you could do this, right?

You could create something where maybe the upper class would work with new, first year students. Just say "okay, you know this is what would've helped me if I were starting at my first year."

F   Tutoring or something?

T   Not really tutoring. It's kind of because you are not teaching them or you are not tutoring them but it's more like these are the ways in which it is effective to learn and here's how you manage your time.

Because if you are a third or fourth year student, then you could give advice to someone because you know what it was like and now you know what's important and what's not important, right? You could say "well, okay. I worried about that but that's not what you have to worry about. Worry about this", right? But it is sort of collaborative community model that, might be helpful for some, or like peers giving feedback to each other on your writing, because you are not correcting the writing. But just spending, maybe at lunch time, you could do a writing swap. Everyone brings … not the finished essay… but if you started writing something, bring your writing and we will meet at lunch in 10 minutes. Everyone swap, right? Read it and give them feedback and say, "Okay. I just read your draft and I think maybe this part is confusing" and so it doesn't have to be the same discipline but you could tell when the writing is clear and when the writing is not clear, right?

F   Just inaudible pressure or something like that.

T   Yeah! So maybe there are formal ways in which you could support each other. And you have a great space to do this. So it doesn't have to be an official university course. But it could be very collaborative. I mean I know it's hard because I remember you feel

like "oh, so much pressure. I'm swamped". One of the things I would tell you though, I used to tell my students this as well, is　that it is really easy to feel like, "Okay. It's only me. I'm alone." You are not alone, right? Because everyone is going through this which is why I'm saying, maybe there's something you can do, you can just get together with friends or peers and think about 'what are the small things, if you could spend 10 minutes of your days supporting each other, what could you do?' That could be productive. So you are not feeling alone because that's the most important thing. Don't be alone. Any other ideas?

F　We have an introduction class in our education course. We have some section that my professor give us some lectures but it's not really a lecture. One professor gave us an opportunity to think about how we spend our time in university and what our goal is. We can think and expand our ideas. With this opportunity I can think about my goal and I can think about what I should do at university, because my goal is clear. So that opportunity is very effective for students to think about their goals, to have motivations, and think about how to spend the life at university.

T　Yeah, I think it's great if you have an opportunity to do that, to think about what you could be doing… not just in your classes, but how can you contribute.

F　When I looked at this graph, it was interesting for me, because I think, to be honest, many university students in Japan put so much time into playing.

T　You just told me you were stressed out.

F　Yeah, but generally speaking, university life in Japan is assumed to be like a time for vacation in our lives. It's a contradiction but some students don't feel about university life in that way. It's true that many students spend their time doing part time jobs to save money, or for playing. So it's kind of interesting.

T　Yeah, now it's hard to find the balance. I mean it's true in America that university students have to work so hard. Everyone works hard, but the course load is different because students don't take 10 courses, right? They usually take maybe 4 or 5 courses. That's because the courses meet several times during a week. So they meet 3 times a week and there's a lot of work so usually if you are taking of course that's not… well, even science courses, you probably have to read about 100 pages a week. And you know, if you are taking a humanities major like a literature major, then you are reading

200 pages a week. And you are also writing all the time, and when you're in lab if you are science major then you are probably in the lab for 10 hours as well. So the course load is pretty heavy. You usually really keep going all day long so it's very stressful, it's a lot of pressure. But I think that's why they have the "University 101" courses to figure out how to study and how to balance your time. But in some universities, they are also doing so many activities. In addition to studying, they are involved in athletics. They might be on an athletic team or they might be in a theater group, or they might be volunteering— they are engaging in some kind of service learning project or they are volunteering in the community or they are involved in politics. So they are over-achievers and they are exhausted all the time. It's hard. I don't mean to discourage you, but I think that— which is why I always encourage my students and say "don't be alone" — like you have to find your community, you have to find friends and peers that you can be supporting each other. It's also important to try to carve out some play time. Play doesn't mean like literally partying, but maybe you are doing… you have a hobby or if you like to go running or doing something so that you could clear your head space, because it's important for your health. So, but anyways it's 1:30. I want to say thank you all so much. You've been so generous with your time and I really appreciate all of your ideas and sharing, everything. So thank you. It was really great to meet all of you.

F   Thank you.

Meeting with Students of the School of Global and Community Studies

国際地域学部生との懇談会

国際地域学部生との懇談会

日　時	平成 29 年 5 月 25 日（木）　16：30 〜 18：00
場　所	総合研究棟 I 13 階会議室
出席者	キャシー M. タカヤマ博士、国際地域学部生

　国際地域学部学生との懇談会には、国際地域学部 1 年次生 5 名、国際地域学部 2 年次生 26 名が出席をした。懇談会は、国際地域学部 2 年次生司会の元、タカヤマ博士と学生の間で質問を出し合う形で、懇談が進められた。タカヤマ博士は、自身の経験も踏まえながらアドバイスを加え、質問に丁寧に答えてくださった。

　学生の質問は、「どのように英語のスキルを高めたらよいか」「どのように学習のモチベーションを維持したらよいか」「留学先での不安」「日本の学生とアメリカの学生との違い」「国際地域学部プログラムについて」「学生生活の中でどのように将来の夢をみつけたらよいか」など様々であった。また、懇談の中盤では、タカヤマ先生が投げかけた質問に対して、近くの学生同士で話し合いそれぞれ発表するという、アクティブ・ラーニングも行われ、終始賑やかな雰囲気であった。

　タカヤマ博士からは、自分の没頭できること、好きなことをしなさい、などのアドバイスをいただいた。自分自身の心の声に耳を傾け、自分が何をしたいのか、好きなことは何かを考え、周りから指示されたことを行うのではなく、自分自身の情熱や、好きなことを貫いてほしいとのことだった。学生の多くが不安に思っている、言語学習方法については、わからないことを質問することを恐れず、また、留学先では、その国で友人を作ったり、コネクションを作ったりして、そこにどっぷり浸かる生活をし、楽しんでくださいとのことであった。

　また、夢は自分の趣味や好きなことから見つけることができるし、授業中のちょっとしたことからでも、自分のパッションになりえるので、常にそれを追い求め、好きなことをしてくださいとアドバイスをいただいた。

Meeting with Students of the School of Global and Community Studies

Date	Thursday, May 25, 2017
Time	16：30 − 18：00
Place	Conference Room, 13th floor of the Tower

Members Present
Dr. Kathy M. Takayama（Northeastern University）
Students of the School of Global and Community Studies

Speakers

T：Dr. Kathy M. Takayama　　F：Students of the University of Fukui

F　Hi, nice to meet you, we are the students in the School of Global and Community Studies.

　Today we are so glad to meet you, so welcome to the University of Fukui. As you already know, our faculty was established only one year ago, so this is a new faculty.

　Sometimes we had troubles which we had never experienced before, and we didn't know how to deal with them. But whenever we had such a trouble we always cooperate with other students and teachers, then we will find out how to deal with these problems. So thanks to the wonderful teachers and students and the environment around us, we can enjoy and have a great time in this faculty. So today we would like you to talk about what we should do now in this faculty and for our future dreams, so again welcome to our university. Thank you.

T　Thank you.

F　At first, does anyone have a question for Takayama-sensei?

F　Nice to meet you. I have a question for you. I like studying English and I want to speak English more fluently. Now I am working at a restaurant part-time and sometimes foreign tourists come to my restaurant and I have to speak English, but I cannot speak English immediately, so how can I improve my English skills in daily life?

T　First, thank you for your question. How many years have you been studying English?

F　Seven.

T   And have you ever lived in or have you ever studied abroad yet?

F   Only two weeks I went to Taiwan.

T   I see, so language learning is… it doesn't come immediately. I think that's one of the hardest aspects of learning any language, not just English, is to be comfortable speaking it colloquially.

　　The great thing about learning languages is that basically the more you practice and the more you push yourself to really immerse yourself in a language by not thinking of it as something you are studying but just using it to think of, to wonder, to engage with something else… so, I was talking to someone else earlier, another student, about how he could improve his English and I was thinking about when I was a university student, at that time my passion was for French. I was learning French, and I remember, like you, I really wanted to become completely fluent and comfortable so that I could have a conversation with anyone and what I started to do was… outside of my classes I started to read books in French. But the kinds of books that I like to read, not textbooks, but novels, and even though I had difficulty in the beginning, I didn't say "Ok. I have to know every single word," I decided I'm not going to bother with the dictionary. I'm just going to keep reading and keep reading. Because when you're reading a foreign language, sometimes you could figure it out by context. And then I also started renting movies in French, but again the movies that I loved to watch. And again total immersion, and just by simply reading and watching movies all the time, I guess I would describe it as the way the language "felt," which is interesting because when you are learning a language, you don't think about a feeling, like a physical feeling, but I really started to feel the language and the most important thing is, if you have an opportunity to study abroad, the most important thing is total immersion. In order to survive, you have to speak and interact with others. So I think those are ways in which you could really, realistically, try to immerse yourself, you have to keep practicing and don't give up. I mean it will happen. It just takes a lot of time.

F   Thank you very much and does anyone have questions?

F   What's your first impression of the GCS students or programs? Do we have any strong points or weak points compared with other university students?

T   That's a hard question because you are such a young program. You just started. I don't think that I could fairly answer that question because the program is too young.

I think that what I know is I visited Fukui in 2013, and had a great week here learning about the university and talking to faculty and, again, students and understanding what were Fukui University values and what's really important for all of you at the university, and what do faculty really care about, and what do students really care about. I am really excited for you because I think GCS as a philosophy is a wonderful opportunity when you have a school that's built on the philosophy and the commitment of global engagement and social engagement, civic engagement. That is about what kind of people we are preparing and what the graduates are preparing for this world. So I would say that that's really innovative. I think that it has the potential to create community, a community experience in university which is really wonderful. I think when you gave me your wonderful welcome you talk about how everyone here is so helpful and collaborative even, and there really is a community, so I'd say in principle the idea of a school that's built on this kind of mission and philosophy is fabulous. What you have as a challenge and what you have ahead of you as the pioneers, and as a kind of … the first people who are going to graduate from this program, is to really be participatory. Do you know what participatory means? It means to be fully engaged and by fully engaged, I don't mean just in your courses. To be fully engaged as a community, I mean you're all part of it, you're here for each other as well, and to feel as if this institution is indeed your community, then how might you work together to think about not only what you're receiving as an education but what is your role to give back to society, what is your role to give back to our world. And I don't mean doing something huge. It doesn't have to be some kind of large humanitarian project. But even small things in life matter. How are you going to take what you are learning here in your studies and think about how that connects you to the society, to the world, to the community. Because I think it's really… particularly right now in the US, everywhere in the world, those of us who are professors and in higher education in universities, we are constantly worrying about what kinds of graduates are we putting into the world. How do we create graduates that are going to be able to civically engage with society, to be able to engage across countries, to be able to have empathy and understanding? In addition to the studies that you have learned, it doesn't matter if you are an engineer, or if you are a computer scientist, if you are a biologist or if you are someone who's studying languages, studying English. No matter what you are studying, I think there is a much bigger mission. It's bigger than us. It's bigger than individuals. It's particularly important because of all the changes that are happening all over the world as you know. And it's, I think it's important to be connected as a community of students, but also to be connected as a global citizen. I might ask you to think as you go through four years here. What does it mean to you to be a global

citizen? And not only, you know, that. You have to figure that out, and in relation to what you are studying, what you are learning, not just from your professors. What are you learning from each other? And how are you contributing as well? What are you going to give up yourself to be a global citizen? I do feel that this particular school "GCS" has the potential to create that kind of education. So I'm really excited for you. I think it's a great opportunity.

F Thank you. I'm glad to see you and have an opportunity to talk with you. Actually I have the same question as her, but what do you think of our program and how was our class? I know you saw some classes today, and I was in the composition class of Laura-sensei and I'd like to know your first impression of our class.

T Sure. Thank you for your question. I think, first, I'm really grateful to Teraoka-sensei and everyone here for letting me speak to the students because for me it's so important to be able to talk to as many students as I can when I am visiting a university… because you are the reason why I am here. So when I was observing your class, I was struck by the careful way in which your professor selected the readings. That you are looking at and thinking about the rhetorical practices. When you were writing, and when you were thinking about ethos, and logos, pathos, I noticed that she was very thoughtful and creative in choosing what you are reading because the readings such as Martin Luther King Jr. and some of the current topics that are happening in the media are very relevant. They connected to what I just said earlier about being a global citizen. Because you are too young to, you know, have been directly influenced by what was happening with Martin Luther King Jr., and of course I mean I was too young back then as well, at least I was alive though, you guys weren't alive. But no matter what country you are from, there are people in history that gave of themselves so much and even if they are in a different country, they made everyone's life in the world better because of what they believed in and what they contributed. Even though Martin Luther King Jr. was a black man in America, his civil rights approach has influenced everything else that's happening in the world in terms of what does it mean to take a stand and to engage, to realize that you, as an individual being, are smaller than the big world. It is important to think about what the bigger mission is. Even though your courses are about composition, the way in which she selected the readings, is connecting you to the world, right? Because you are thinking about how do I write, how do I construct an argument, what were the rhetorical practices being used. But the example she has chosen are very powerful. She could have chosen something else. That might have been entertaining. But your

professors are very thoughtful, thinking about, even in the practice of writing, how is she going to help you to ask yourself hard questions. And I really appreciate the way when she did that. So you might also think when you are taking another subject, and it might be something that's maybe not directly related to global citizenship, maybe it's something like chemistry. Or, but you could still think what are the ways in which for some reason, I'm thinking about the connection of this discipline to other disciplines or something in my own personal life or something in my friend's life or the life of my sister or of my brother's life, but it's all about helping you make connections interestingly. So one of the things I do back in Northeastern is that I direct the center for teaching and learning and what a center for teaching and learning is in America is … it is a research center that helps faculty teach better. We use research and cognitive research to help faculty, to help professors design courses. One of the things that we do know from a lot of cognitive science and research is that students will learn much more effectively, really deeply learn, if there is a bigger story, if there is a connection, just something that's meaningful to them personally. And so I think that… but you don't have to depend on the professor to do that for you, you can think about what that connection is for yourself. Even if you are learning something in a course, and it might seem like this is really dry and boring, you can make it interesting for yourself because you could say what does it mean to me and what is the connection I'm creating to help me be interested in it. And my long answer to your question is I think that the way in which, you know, I see your classes and the thoughtfulness that your professors are bringing, is done with their intent, their goal for you to help always make connections and define the meaning.

F   Thank you. Does anyone have a question?

F   I thought you talked about the participation by students, to participate in the course or study or program. But I'm not sure about this idea because the Japanese traditional study style is that the teacher teaches, and students only listen to what he or she says. Could you tell us some examples of students participating in studying in US universities or colleges?

T   Of course. I think that I'm hoping that in Japan things will change because the rest of the world is changing. Even, you know, in July I'm going to China because China is already changing as well. They are using new methods of teaching where the students actively participate in discussion. The US has been doing this for many years, Europe is already doing this. I was a professor in Australia for many years. Australia is doing

this as well. I think the way is… some of your professors are thinking about this. They've tried to change your courses a little bit. But again the way in which learning works is, so… can I make a confession? Do you know what confession means? Can I admit something? Can I tell you a secret? That's what confession is. I will tell you a secret. This set up that we have right now. All of you are sitting and in rows, and facing forward, and I'm sitting here at the front. So for learning, this is a terrible set up. Because this means that I'm the authority, I'm the boss. Right? You're all over there listening to me. When I was a professor, I taught biology, microbiology for many years. We didn't sit like this. We sat in groups and circles. And I walked around all the time. Because it's important for students to be engaged with one another. Because you just said there you get so much support together, and you support each other, you learn from each other. Right? So that's what has to happen too in the course. We want to be thinking about what are the ways in which we can design courses where the professor can first give some information and maybe ask a question. But then instead of me sitting up here, waiting for you raise your hand to answer, you are sitting in groups. And after I ask my question, you are going to talk with each other to figure out the answer. So that's in in America, or in in the rest of the world, it's called "Active Learning". And that's the name of the way of teaching. And so many universities now have all gone completely to "Active Learning". Even in large classes, in my colleague's chemistry course where they have three hundred students and it's in a large lecture hall. So you can't move the seats because it's fixed. But he still does "Active Learning". Because he just tells the students to turn to each other, and talk to one another. Because you know, so you know, what it's like, right? I'd like to hear from you. Give me an example when you figured out something on your own and you really learned how to do it, so that you could teach someone else. And you became so good at it… and doesn't have to be a class. It could be something, you know, outside of school. But can you tell me when you learned something by yourself? Can I hear an example from somebody? Oh, ok, here is what we will do. Right now we're going to do this as active learning. At your table, talk to your friends at your table. And talk about, share with them about when you learned something by yourself, like I learned how to ride a surf board or something, anything, but I'm going to give you one minute and I want you all to talk to each other. Right now. I'm going to walk around.

One minute（discussion）

Ok. That's great. I want to hear volunteers. Tell me and doesn't have to be yours, maybe you can tell me about what your neighbor told you. Let's hear. What did you

learn?

F   When I read a book.

T   Ok. So you really learned how to read and you were so excited and interested. Thank you. What is another example?

F   Use the internet.

T   Use the internet, but you're really good at that, right?

F   Yes.

T   Of course, right, it's so interesting. You keep on, you do, you do, and you figured it out, and then you learned how to do it because you taught by yourself. Let's hear one more.

F   When I do an assignment.

T   When you do an assignment. How did you learn how to do an assignment?

F   If I see the some part which I don't know, I surf the internet.

T   Great. The reason why you want to do it is because you are very interested. It's not because someone gave you an assignment and book as well. You got an assignment.
  If you want to do it and if you decided to learn how to do it, the reason was your real personal motivation. But that's what has to happen in the class. Because if I just sit here, and just tell you to memorize microbiology, that's going to be really boring.
  When I taught microbiology in university⋯ I tell everyone that microbiology is the best thing in the world because I want them to know how excited I am. That's why I became a microbiologist. And then I tell them the reason why it's the best thing in the world. It's because I could tell every single person in this room that everything you do today is based on microbiology. You can't live without microbiology. And so then I connected to real life first because I talk about it... Do you like chocolate?

　（Students say yes）

T　You can't have chocolate if you don't have microbiology. Do you know how chocolate is made?

F　Cacao.

T　Cacao. Where is cacao come from?

F　Ghana.

T　And how do you get it from Ghana? What does it look like when you first get cacao? What is cacao?

F　Plant.

T　It is a plant.

F　Seed.

T　Seed! Uh it's actually quite big. It's a cacao bean, like this. And you get it in Ghana because you like whack the tree and stuff falls on the ground. But you don't pick up the harvest. Leave it on the ground. You cover it, and then you let it ferment. It's like making "natto" only you're using cacao. And then it starts fermenting. It starts to turn into cocoa which you then pound and grind to make the chocolate powder. Right. So those of the kinds of stories, my students remember because my students don't remember if I say, "well the process of fermentation is…" and I go to the board and start writing all these equations down. That's horrible. That's boring. But if I start with the cocoa story, the cacao story, or something else, you are going to remember that, even after you graduate, you are going to remember that. Because it's a story and it is a fun story. So active learning is about really making human connections. To say let's think about something you know about and you can connect with. So how do I make my discipline? How do I make my information connect with your information? And so that's what I do right now. Because I hate sitting here and having to stand to talk to you. Because first I wanted you to have a chance to talk to each other. So you get interested in the subject matter, right. And then you share with me and I have a conversation with you. But you are still learning a lot because right now I taught you a lot of things and I taught you about microbiology, I taught you about active learning.

　　But you don't know that you're learning because you just, you know, you're

listening to the stories. But you're learning. So that's the methodology that we use in America to teach different subjects. I'm excited because I think that here in Fukui your professors are interested in, you know, they are very committed, and they are very dedicated and they are thinking about the ways in which they are going to set up, and to continue to develop the GCS curriculum and what are the ways in which they want to create interesting experiences for the students. So any other questions?

F   I want to listen to your experience and what was the biggest and the most difficult problems you faced and how did you overcome the problem in your life?

T   That's a hard question. Actually I'll tell you one experience that was really hard, which is why… I think it's why I became a professor, why I became a teacher. When I was five years old, my dream was to become a veterinarian. Do you know what that is? "juui" and because I love dogs, I really thought that's what I was going to be. So, I applied to go to university and, you know, I was, you know, thinking about what I was going to study and I decided I like biology. So that's… OK [I thought], I'll study biology because I could, you know, apply to go to veterinarian school afterwards. Because in US, you have to first finish your undergraduate degree, then you have to get a graduate school degree to get a veterinarian degree or a medical degree. But my father decided I was not going to become a veterinarian because he said "That's a stupid profession. Why should you take care of dogs?" He said "You should be a doctor. You should take care of people." And it was really hard because my parents were actually from Japan, they migrated to the US. I was born in New York. And I was very obedient. I had to do everything they said because I wanted to show them, I was, you know, I was older, the oldest daughter, I had to set an example, so I never, it never occurred to me that I could disobey my parents. I should always do what they, you know, recommended because they said they knew best, right? And so, I didn't become a veterinarian, but even so I thought I have to apply medical school, and go to medical school, and then in my third year, I took a course. I took a research course in biology, and it was fabulous, because this course was only about… so this is like way before you guys were born, when genetic engineering, do you know genetic engineering? … So this was first starting in the world, right. So the whole field of biotechnology was starting. It was a very exciting time to be in on it. I went to University in Massachusetts. And that's where a lot of great research was happening. It was a great time to be there, and the course that I took was… we wrote research papers, but there were no lectures. The whole of the course, we were in the lab all the time. And we were doing real research that the professors were doing in their lab. It was so exciting for me because

it didn't feel like school work. I just couldn't wait to get to the library every day. And I found out that there was a career, called being a scientist where you could go and get a PhD and you could do research for the rest of your life. And I was amazed: Really? I could get a PhD? With just doing this? And my professor said "Yes. You could go to graduate school and get a PhD." And that was amazing to me that I could do this for my career, but I was afraid to tell my father that I was not going to be a doctor. So I lied. For the first time in my life. Because he gave me, he gave me money so I could apply to take the test for medical school and instead I took the test for graduate school. And he asked me, "Are you applying? Are you're going to be a doctor?" "Yes. I'm going to be a doctor" I didn't tell him what kind of doctor, because I was going to be a PhD, not MD. And um so, you know so the lesson there was, it was hard because it was so disappointing, but even though I was so disappointed I found something that I was really passionate about. And then I had to have the courage to say no to my parents. I have two kids. They say no to me all the time. But I think, you know, as a teacher, and as a mother, I really believe in supporting the dreams of students, and the passion of students. I think, if you could find a passion, that is so lucky because I think… I saw a lot of students when I was a professor. I saw many students in my class whose parents told them "You're going to be a doctor. That's why you're taking microbiology." And they were so unhappy because they didn't want to be a doctor. But once in a while, I see a student who has a true passion. And their secret, they share their secret with me. The secret was they want to be an artist. And I said "That's great. That's amazing. What are you doing in my class?" And he said, "I have to be a doctor." And I said, "No. you know, just let's work together. And you know, you can still stay in my class. But I'm going to get you into the art class and you're going to sort of, you have to follow your passion." Um, it's hard because, you know, my… I know my daughter's friends have parents that are very strict, and they say: "You must be a computer scientist, or you must be a doctor or engineer, something, because you have to have a great job." And it's hard for their friends because sometimes they don't want to do that. But I really believe that if you follow your passion so that when you get up in the morning, and you go to work, it doesn't feel like you are going to work, right? You feel like you're going to play, because you love what you are doing. That's the best thing in life you can ask for. Because if you love it, and you're really passionate about it, you're going to do well. And then you're going to… it's going to open up more opportunities for you. Some of the, you know, the really famous, um, in America there are some really famous screenwriters, people who write like television shows. And then it turns out that they started out by studying English and writing in college just because they loved it. And their parents said "Don't do that. Don't study English and writing because you'll

never have a job." But they loved it so much they kept doing it. And then they were brilliant writers and eventually they got other opportunities. One of my closest friend's brother, a cousin, is a screenwriter. Um, here in Japan did you have the, do they have the American TV show, called "West Wing"? Never heard of it? It was very popular in America. Um, it was a TV show and it was all about the White House. It was good writing. The writer for the "West Wing" was my friend's cousin who was an English major. And he kept writing because he loved it and then he got so good at it, that, the presidential campaign, the Obama campaign, asked him to write Obama's speeches, so he went to Washington and he started to write Obama's speeches. And then from there, he wondered, "what I am going to do next? And he decided "my passion is still writing, but I am going to try to write for television because this is a challenge that I've never done before." So he really studied hard to learn how to write for television, and then he became so successful that he went to Hollywood, and then they gave him his own show, and so I think the way you find your place is because you're passionate about something. And that doesn't mean you have to know what it is right now. Because part of the experience of university is to really understand, not just what you're studying, but just as important, is to understand yourself. It's about learning a lot about yourself. And you're going to learn a lot about yourself during your studies. In realizing, "when am I really excited?" or "when am I really feeling like?" or "this is so exciting I don't want to stop," versus "when I feel like I can't do this right," or "I'm just not interested." And you have to listen to yourself. Then you also have to think about …what I know is always stressful to think about; graduation, jobs and employment. But you really have to figure out how you're going to really learn how to learn, follow your passion and shape opportunities. And part of that… it doesn't come from reading books, learning from the text book. It comes from, as I said earlier, you have to really be engaged with the world, engaged with one another. And talk to your professors, talk to lots of people on this campus. I think that's what all the educators are here to do—support our students. Does that answer your question, about what terrible thing happened to me?

Any other questions?

F   Before I came to Fukui, I lived in Yamanashi. Yamanashi is a very small prefecture. And I think Fukui is a small city and prefecture. What is the most important thing for these small cities and small prefectures to do to globalize?

T   I think every city, no matter how big or small, has its own culture. And it has its own strength and identity. And my definition of globalization doesn't only mean

connection to the world, the other countries. Because do you know the meaning of the word "mindset"? Can you translate "mindset" for everybody?

F　その人の何かに対する姿勢とか考え方

T　Thank you. When we talk about global mindset, global mindset doesn't mean always the rest of the world or the other countries and cultures. Global mindset also means openness to new ideas, and connection and thinking about things in new ways and being adaptable. Because in order to be a true citizen of the world, we first have to have a global mindset. So you can have a global mindset within your own community and your own city which allows you to be prepared, to engage with the world. I can remember people that I know who traveled a lot. They traveled all over the world. They didn't have a global mindset. And no matter where they went they still wanted to be American, and so they missed the whole point of traveling because they learned nothing. So there are ways in which, let's say, in a small, regional city like Fukui, a mindset can be global by paying attention to a local community and understanding how we… even, how we connect to close differences, because even within the same city there can be differences, right? And or there could be in the smaller places, there might be some migrant populations that come in, and I know, you know, in America we have small cities, but we have a large influx of refugees or immigrant populations or different ethnicities. And we need to engage in saying, ok, how, as, as communities how do we take from each other? So I think that a place like Fukui which has a strong community can think about global mindset as a strength. So that there is a preparation to be connected to others when they come to Fukui, but also when Fukui makes connections with other countries, there could be, there is much more strength and connection in that. I think it's hard if in your small city, you know, it's not going to be possible. I grew up in New York City. So, you can't ever do the things that New York does, because New York is a destination for everyone to come all the time, but you don't have to do that to be global. You can actually sort of think about ways in which we become informed, citizens, and to be, to be very kind of generous of heart, generous of mind to be able to do that.

F　Thank you.

T　Sure. Any questions?

F　I know US students study hard, so what is it that they maintain to do that and what

motivates them, and what are the differences between US students and Japanese students?

T   I don't think there is a typical US student. Even among US students, there are so many differences. So some students work really hard and some students don't work hard, so I think that, you know, probably US has a reputation that the students work so hard in college. I think a part of the reputation comes from the universities, you know, the really top universities that the world knows about. And so then, you think about the students, about those universities, they work so hard, and you have to work so hard to get in. But the US has hundreds of universities, and they are all different and some of… and the students have different priorities, so, so maybe, you know, maybe, my answer to both of your questions is that the difference between Japanese students and US students are that there is no typical US student, but I guess my question to you is would you say that there is a typical Japanese student? You are all different. So in every country you're going to find differences. Um, for example, I would hate for the world to think that all Americans are Donald Trump. That would be awful, I'm an American, and I don't want him to represent me. That's not the world I like. So, you know, every country has a big collection of different people. And I think that's maybe, that's also a part of what we need to be global citizens and have a global mindset… to recognize that there are differences even within one country or one culture, and we have to have an open mind to think about; "OK, so what are the ways… if I learn from all of these different cultures." It's like food. You don't, you don't want to eat the same thing every single day, right? There are different variations on that, so, and I think… but if I think about, not necessarily the students, but the educational systems then, they are very different. I mean for the reason you already said, you know that the Japanese system is very structured in comparison to the American system. So that's the big difference.

F   Next year, many second GCS students will go abroad but I'm worried about my English skills and how to live in another country and how to communicate with students in other countries, so what are the important and necessary things to prepare for going abroad?

T   You are not the only one. Everyone's going to be worried when they have to go abroad, because there are so many things you do not know. But what I would say is that you don't have to think that everyone is looking at you or judging you. You want to embrace the opportunity to say "I am learning all the time, I shouldn't be afraid

of asking questions," because when you study abroad, people in the host country are going to know that you are from another country and they'll be very patient, and they'll be happy to try to help you, right?　…to answer the question. You are not expected to know everything, you are not expected to know the answer. I would say "don't be afraid to ask questions," and people are very kind. I feel that everywhere in the world there are kind people that want to help. And you will find them. And so it's such a great opportunity to practice your language. I would go with the attitude that you're going to learn, learn, learn and just enjoy yourself, I mean really enjoy yourself, make friendships, don't try to only… don't be afraid to try things. American students are all different. Some American students when they study abroad, they completely immerse themselves. They want to do everything, they want to try everything, make friendships, they want to really…even if there are, let's say good friends… and try to practice French. Even if their French isn't so good, they don't care. They just go and try. And French people really appreciate it. I have also seen some American students who study abroad, and they only want to stay with other American students and they don't want to do anything else. And that's terrible because why go abroad, if you are going to be with other American students, and you only eat American food. That defeats the whole purpose. So really sort of embrace it, and you'll enjoy. It will be fabulous. You'll make wonderful friends.

　Any other questions?

F　I have a lot of things that I want to do, but also I have a lot of things that I have to do, so sometimes I don't know my priority to do something. What should I do when I face these things?

T　Can you give me an example?

F　Homework.

T　Homework is important. One of the lessons that I had to learn when I went to university is time management. It is hard because you have to say "OK. I got, you know, this many hours, I've got all these things that I have to do, then I have to do things that I want to do. So how do I priorities right? What is my priority? How do I allocate my time? How do I divide my time so I can manage both?" One of the things you should recognize is, let's say you're working on something that you have to do, like homework or paper something, but you realize that you're not making progress. I would say "stop and put it aside." Because if you're not making progress and you

struggling, that means it's time for a break, and do something else. Because otherwise you going to be wasting time. And sometimes when you take something and put it aside and work on something else, and then you come back to it, maybe you have a breakthrough, right? Maybe you have a new idea. But you have to recognize that. You have to self-monitor, and realize "oh this is what I'm doing." So really one of the hardest things to learn for me, at least when I was in university, was time management, and to get better at it.

I didn't have the internet and you are distracted by the internet. It's so easy to … once you are online, you're on the phone whenever, or you're texting, you forget how much time has passed. So you might want to think about how much time you're spending on your phone or the internet. If you feel "I'm not getting enough sleep," or "I don't have enough time to do this," maybe for three days keep a diary of how much time you're spending on your phone or texting, and whatever, and you will be amazed at how much time you're spending and you could say "OK, if I took all that time, I would get a lot more done," and you know I do, too, right? When I'm online, I forget about the time. But it's really hard sometimes when you are, especially when you have a deadline, you have things that you have to do, it's so easy to just get on the web because you don't want to do your homework.

Any other questions?

F I have a question about my dream. You told interesting story about your dream and your experiences. So now I don't have big dream. It means I cannot decide what I should do in the future. How can I find my dream while in university?

T I would not be worried if you do not have dream right now because a lot of university students don't know what their dream is until later. And I think sometimes you find a dream by taking a course and you think "This is so interesting. I want to know more." And so here is the challenge, because I understand that the Japanese system is different from the US system, because for your course of study you have courses that you must take— requirements. But do you also have electives? Do you know what electives are? So in America, outside of your required courses for study, you can take, maybe, you know, three or five courses from anything. Those are called electives. You don't have that. So you must take what is in the program. Do you have some choice? And when you make the choice, are there opportunities you might explore something new?

F　Maybe we have some chance to choose the courses, but there are not so many.

T　All right. So given that you don't have a whole lot of choices, you might still find something interesting in your course, or maybe there is a project that you work on that is very exciting to you, and you decide I want to know more about this subject, or maybe there are some kind of volunteer opportunities, or when you study abroad, you get exposed to other things. But if you keep an open mind, and if you find something interesting, push yourself to learn more about it. Because sometimes you might read something in the class or maybe there is a small assignment or project that you think was interesting. But don't stop there. Don't stop, don't, just finish the assignment but say "what else can I read? how can I find out more?" Because if you hear…if you notice yourself being interested, then listen to yourself. "I should find out more." Because sometimes passion comes from a little, tiny spark. Passion comes from your own personal hobbies. Do you have any hobbies? What are they?

F　Listening to music.

F　Reading books or watching movies.

T　Ok. So you are very interested in the performing arts, music, books and movies.

　　This is enjoyable to you and because it's relaxing you enjoy doing it. And maybe there are ways, sometime in the future… maybe you'll become a music critique. You like to read. You like to listen to music. You like to watch movies. Maybe when you are writing about it, it becomes more enjoyable to you. If in your writing class you have to pick up a subject, you could think of a way to critically analyze music, right? But think about ways in which you could connect your personal life sometimes to your school work, if it makes sense. And there're ways in which you could do that. My younger daughter, younger daughter who… she will start university this fall— her passion has always been theater. She loves going to plays, and she started acting, you know, just in school. And even though it was meant to be a hobby, it became a real passion for her. And so, you know, she is, in addition to school work she also performs in the professional theater after school. And I think this is the part of me where I remembered my big disappointment in life, and when my father told me that I couldn't be a vet. And for me, I thought, "how lucky! She has a passion." All of the other mothers were telling me, "That's terrible. You can't let your daughter go into acting. You know, she's never get a job. You should tell her to go study computer science or

something." And I said "No. she's got a passion, and I'm going to support it." And I think, I just think it's so lucky when someone finds a passion. It's really beautiful. I think it's great. But you'll find it, you know, don't worry about it if you don't have one right now. There is no deadline. In fact, my friend who is one of the world's top neuroscientists, do you know neuroscientist? Yes? So his specialty is he researches smell's functions and the world's top perfume companies use him as a consultant. But he found his passion when he was 40 years old. Before that, he was a theater director. And I mean he has a passion about that, too. But he was in California and he was a director, directed theater, and put on many plays and then he accidentally found neuroscience because one of the people that used to come to his plays was a scientist, and they used to talk. And then he got really interested because he didn't know anything about biology, and the more they talked, the more he realized this is fascinating, you know? He didn't even know there was so much to be done. And so he started school all over again. He went back to university, and at forty he found his passion. His second passion. Any other questions?

F   I think it is a little sensitive question. Have you ever experienced being discriminated against? Because you look Japanese, but in America there are a lot of white people or other people, so I think discrimination against others who have different cultures and traditions and religions is a big and serious problem around the world like ISIS and terrorism, so I want to listen to these things.

T   Sure. It's interesting, because today in New York City, there are so many Japanese, and so many Asians in general. And interestingly when I was a child in New York City, there were very few in my neighborhood. And so I felt, I was discriminated against, not, interestingly, not by my teachers or my friends at school but just aside when I was walking to school. So I know what that feels like. But then as an adult, as a woman, as a scientist, in my adult life, I faced discrimination again. Not because I'm Asian, but because I was a woman in science. And in my department at my previous university when I was in Australia, at one point, my department was, there were seventy faculty, seventy professors all together and only three were women, and I was one of them. And, so the men were very discriminatory towards the women. And so, it's hard when you experience that. I would say that it made me tough. I learned a lot and how to focus on the work and how to be very clear and articulate when I was speaking, so that … I had to do that because I needed to make sure that I got my point across. So it goes to the broader issue, and, discrimination in America, racism in America, I mean racism exists. It's not, I think there is an impression in the rest of the world that America

is terrible because everyone's racist, all the African Americans are being suppressed and everything. It's more subtle than that. I mean there are different ranges of racism. I would say on a day to day basis? No, I don't experience anything because Boston and New York are so multicultural and university experience is so diverse and so welcoming. And universities in America are wonderful because the students are very engaged and very attentive and alert, and absolutely committed to making sure that they as students are very active in fighting any kind of discrimination. But it still happens. It could happen in subtle ways, right?... if someone may not get a job because of who they are, but you can't ever prove it. So part of being a global citizen is also to be thinking in inclusive ways. To be aware of our own biases; we all have implicit biases. We can't help it. But the important thing is to at least be aware of it to realize "oh I just said something and I didn't mean to say it, but I realize the impact might have had on someone." That's step number 1. And step number 2 is to not be afraid to speak out. I used to be afraid and shy when I was being discriminated against. I have learned to speak out and to, not in an aggressive way, just kind of question, "Did you really mean that?" to be able to engage and connect with others.

But I feel like the values of GCS, where you're thinking about global engagement and becoming more connected with each other, learning how to communicate is really key because if we're thinking about the ways which we can create a better society, then we have to think about communication and connection and empathy. What does it feel like to be somebody else? But America is a wonderful place, it's very diverse, it's extraordinarily crazy in a good way.

Thank you so much for your questions and your time. You are amazing. Remember you are the future. No pressure. And I wish you all of your luck in your study. Be kind to each other. Be kind to yourself as well, and have a great life. Thank you.

F　Thank you.

Meeting with Faculty Members of the School of Global and Community Studies

国際地域学部教員との意見交換会

Meeting with Faculty Members of the School of Global and Community Studies

Date	Thursday, May 25, 2017
Time	13：30 − 16：30
Place	Community Plaza, 2nd floor, Education Building

Members Present

Dr. Kathy M. Takayama （Northeastern University）
Hideo Teraoka, Vice President for International Affairs
Ryuji Nakata, Trustee, Vice President for Education and Student Affairs
Yasuko Hori, Trustee
Nobuharu Onoda, Dean, Graduate School of Engineering
Yukio Funaki, Senior Advisor
Yukio Akashi, Professor, Architecture and Civil Engineering, Graduate School of Engineering
Norifumi Yamada, Professor, Information Science, Graduate School of Engineering
Takahiro Endo, Associate Professor, Graduate School of Education
Faculty Members of the School of Global and Community Studies

Interpreter　　Wataru Hanai, Assistant Professor, Graduate School of Education
Azusa Matsuo, Staff of the Educational Division

Speakers

T：Dr. Kathy M. Takayama　　F：Members of the University of Fukui
I：Interpreter

(Teraoka)　Four years ago, we invited Takayama-sensei from Brown University. During her five-day stay, it was a very tight schedule, but we could receive many great insights and suggestions which pushed us to reform governance and curriculum courses. Just then, we wanted to establish a new faculty, the School of Global and Community Studies. So we kept in mind her advice to make a new curriculum and academic system. Although there are issues regarding manpower and budget, we must continue this reform in the future. Our faculty's curriculum and academic system included the local model to reform at this university. So we are very happy to meet again with Takayama-sensei and have her join us for this session today, thank you. The main members are our faculty members and others, such as board members, Nakata-sensei, Hori-sensei, and Dean Onoda-sensei and our counselor Funaki-san and another faculty of Engineering, Akashi-sensei, Yamada-sensei and staff. Thank you for all for attending today, and I hope it will be good for us in the future. Thank you.

１．基調報告　"Institutional Strategies for a Student-Centered Learning Ecosystem"

Dr.Kathy M.Takayama （Northeastern University）

T　Thank you very much Teraoka-sensei and thank you to all the people meeting me and being so gracious in welcoming me. It's wonderful to be back. You can feel free to interrupt and ask questions so that if there is something you want me to explain more, please feel free. I don't want this to be so formal that you don't have a chance to ask me.

I have asked you to talk about a few different subjects in relation to what you're interested in here in Fukui and so I thought about my title of the talk and titled it "Institutional Strategies for a Student-Centered Learning Ecosystem," because I wanted to emphasize the idea of ecosystem, which is unusual because we think about our universities as being revered institutions of instruction. But I think what's really exciting that's happening in Fukui right now as well as the rest of the world is that we, and higher education are thinking about the entire whole student development and what does it mean for an institution to be in ecosystem where we're all participatory and supporting that developmental process and we ourselves are evolving as universities, as faculties, as administrations.

○ Gallup と Purdue 大学が共同で行なわれた興味深い調査から

T　I wanted to just start with introducing to you an interesting study that was done. It was a large poll by Gallup-Purdue. Gallup is one of the major polling or survey research institutions in America and Gallup joined forces with Purdue University, which in America is one of the premier institutions for doing institutional assessment work. They had this interesting survey in 2014 which they called "Great Jobs and Great Lives." They wanted to know and so they tracked graduates of universities and so many years later, when they were already in the workplace in many different kinds of professions, they asked the graduates what mattered most during their university student experience in relation to where you are right now. It was called the "Great Jobs and Great Lives" study, because they wanted to understand what were the influences that happened to you during college which have long-lasting impact on the outcomes of your career. Now, your career is really connected to the quality of your life as you know. So in relation to that, there was quite a bit of publicity and there were many newspapers that covered the outcomes, because it's interesting. This particular article talks about what happens to you in college. It'll have long-term impact in what happens to you many years later, in the quality of your life, in the ways in which you succeed, and if we turn to the next slide, it turns out that the most important factors are workplace engagement, which they called great jobs, and well-being, meaning quality of life, happiness as related to what the standard of being lives.

First there are two things; first, if you had a mentor during college that deeply cared about you. Really engaged with you and made you excited about the learning and also encouraged you to pursue your dreams; really supported you thinking about what is your passion. Together with experiences during college and experiential learning, and by experiential learning, the definition of that was that it had to last at least one semester. Something short in a course was not enough, but it had to be at least one semester or longer in length. Experiential could also include extra-curricular activities, so didn't have to be directly related to the coursework, but jobs for internships as well, and the ways in which they connected the classroom learning to that experiential learning was critical. So they find that across all the thousands of students that they surveyed, these two factors are most important for long-term outcomes. The reason why I'm bringing this up is because we don't really think about these things all the time. We are really focused on the ways in which we design our courses, the curriculum and degree program, all the requirements, what students have to do. But if this is so important, if these are the things that really make a difference in terms of what these students' lives are like when they go off in terms of long-term, what were they producing for society? Why is it that we don't think about these things. We don't think about the university as an ecosystem as opposed to a collection of college and schools' departments and various systems.

So in the next slide, I guess the challenge to us really is how can universities create these learning ecosystems that can lead to great jobs and great lives.

〔スライド2より〕Gallup と Purdue 大学が共同で行なわれた調査について説明されています。
　Gallup はアメリカの民間の有名な調査会社であり、様々な調査を行っています。Gallup 大学は組織の調査に長けていることで有名なアメリカの Purdue 大学と共同調査を行いました。調査内容は、「長期に渡り成果を出すために、大学生の経験の中で最も重要なのは何か」というものでした。

　〔スライド3,4,5より〕調査で明らかになったことは、職場でのエンゲージメント（好条件の仕事）や、学生の卒業後の人生の幸福度の最も重要な2つの要因を明らかにしています。一つは、メンターの存在です。ただメンターを付けるのではなく、できるだけ学生に寄り添い、一人一人の学修状況や、大学生活全般において連携を取りながら、学生のことを一生懸命に考え、近くにいてくれるメンターである必要があります。二つ目は、体験学習です。体験学修は、1学期以上に渡って継続して行うことが重要です。1学期未満はあまり効果がないとの結果が出ています。

　〔スライド6より〕「好条件の仕事」と、卒業後の「素晴らしい人生」に繋がる「学習エコシステム」を作り出すために、大学として何ができるのか、これから引き続きお話ししていただきます。

T　From the next slide, I'm going to tell you about the most important qualities that at least in America but in some other countries as well, employers find important for the university graduates of today. 1000 employers in 25 industries were surveyed in what they say were the most important qualities in those employees that have the skills they needed and least came from third industries.

　You can see that all of these qualities are indeed absolutely important, but they're not necessarily tied to a discipline. Of course, we train them in the discipline to become great engineers, great authors, people in the workplace, professionals, but we are not necessarily intentionally thinking about these qualities within the ways of designing the curriculum. There is a way in which there's intentionality behind it, as opposed to an assumption that they're picking up these skills or sometimes perhaps they're naturally bringing them into the university.

I　〔スライド 7 より〕アメリカの 25 の企業における 1,000 人の雇用者に「卒業生に求める特性」について聞き取り調査を行った結果、9 つの価値を大切にしているということです。問題は、これらの価値が産業界で重要視されているが、そういった能力・スキルが大学での学びに繋がってこないということです。

○ノースイースタン大学における体験学習の取組

T　So in relation to that, I'll tell you a little bit about my institution, where I'm currently in, Northeastern University, and the reason why I want to tell you a little bit is because the university is unusual. In America, we have different faculties that are trying to work together as an ecosystem to create the graduates of tomorrow. Northeastern was established in 1898 and it identified itself as a global experiential research university. It's located in Boston, Massachusetts. They have 14,000 undergraduates and 6,000 graduate students. We really emphasize the experiential because unlike other universities in America, 96 % of the Northeastern students will have completed at least one CO-OP. CO-OP is short for Cooperative Education. It is unique and it is six months of full time paid professional employment as part of your undergraduate degree. It's not an internship and it's not a research project, just you employed in the workplace.

Most Northeastern students will not do just one co-op but two co-ops, which means that oftentimes, the undergraduate degree may be a five-year degree if you're doing two co-ops, but the employer ability rate is pretty high. 98% of Northeastern graduates end up in full time employment, because of that CO－OP experience. What does it mean for experiential learning? Go to the next slide. I'd like to show you just a brief video.

| ノースイースタン大学における体験学習ついて紹介いたします。

　ノースイースタン大学は、1898 年に設立され、グローバルな体験学習を研究している大学として、全米で注目されています。大学には 14,000 人の学部生と、6,000 人の大学院生が所属しています。

　ノースイースタン大学では、体験学習として「CO－OP 教育」というものをしています。これは、6ヶ月間の体験学習を学部生が行うというプログラムになっており、いわゆる職場体験やインターンシップとは異なるもので、企業で最低 6ヶ月間、体験学習を行います。場合によっては、6ヶ月間の体験学習を 2 回履修する学生もいれば、1 回履修する学生もおり、中には 5 年間大学に在籍する学部生もいます。企業側の利点として、学部生のうちから優秀な人材を確保できるということ、学生側の利点として、責任のある仕事を現場で体験できるということが CO－OP 教育の特徴になります。

　それでは、短いビデオで CO－OP 教育を紹介していただきます。

≪ビデオ≫　Website: Northeastern University – CO－OP
https://www.northeastern.edu/coop/employers/coop/

F　You use the word ecosystem. I don't understand the definition of ecosystem. Do you mean ecosystem is a topic of subject which students will learn more or you're talking about an educational system where you'll encourage students to learn more?

T　So what we need, what I mean by an ecosystem is the second idea, where the students are learning more, not just their subject, and not just the students' learning, but the university is functioning like an ecosystem where everything is connected.

| エコシステムは大学での教科の学習だけではなく、体験学習を含めて学ぶということと、それだけではなく、大学の組織自体を学んでいき、それを有期的に学生の学びと連動していくようなシステムのことを、エコシステムと定義しています。

≪ビデオ≫

| 今のが、ノースイースタン大学における CO－OP 教育における例になりますが、CO－OP 教育は、先ほど 6 か月間の体験教育と説明させていただきましたが、有償です。給料も支払われる形で、日本

の無償のインターシップとは違って、有償で働くということです。フルタイムで働きますので、そういう意味でも、真意の体験学習をできるというところが、インターンシップとは違うものになります。CO－OP教育というのは、正式には、Cooperative Educationといいまして、Cooperative、つまり企業と大学が連携して行う学習ということで、Cooperative教育、それを略しまして、CO－OP教育といいます。日本でも、すでにいくつかの研究で、CO－OP教育と訳されています。次に、サラさんの例が出てきますが、彼女は最初にCO－OP教育を受けるのですが、アメリカから最初に南米、ブラジルに行き、そこで勉強した後に、フィリピンに移動し、そこでさらに働きながら探求を深めていく。健康保険についての知識を、働きながら深めていき、それを他の同僚や先生方と共有することで、理論や実践とつながっていき、彼女の中で将来の仕事につながっていったという例になります。

T So, in addition to experiential learning through strategy as CO－OP, we also have, what is called Social Impact Lab. And this is the way in which the institution does cooperative engagement and community service engagement as a part of the course. So it's not an extra-curricular activity and it's not a volunteer activity, but students are learning the application of theory into practice and supply it directly to a local community. The Social Impact Lab is particularly known for their work in developing what's called Experiential Philanthropy Education. And what the students do is they learn about civic engagement and they learn about the field of philanthropy. How social and nonprofit organizations are structured, how to measure impacts, the organizational principles and what that means when you are engaging in this kind of work. The experiential part is where the students are working in teams and they are given the opportunity to grant ten thousand dollars to a particular charity, foundation, or benefit the local community, but they have to do all the research and they have to apply the theory into making the best use of that donation because they want to measure all the ways in which they can be assured that the money is going to make impact. What is it used for and what is the organization? So this is a very complex way of applying theory. The practice is very stressful for the students, as well. But it's extremely collaborative and the students work really hard to do this because it's real life.

| この社会的インパクトラボという授業があり、こちらに関しては、ボランティア活動とは違って、単なるボランティア活動とは異なり、慈善教育を行っており、それぞれの学生が実際に現場で何が必要とされているのか、現場に行き状況を確認して、その地域について研究をして、それを実際に自分たちで概念化・理論化をして、現場に落とし込んでいくところまで、すべて学生が主体的にやらないといけない。そのため学生は真剣に取り組んでいます。これが、なぜ学生がやりがいを感じるのかというと、自分たちで理論とか概念化したものが、現場に入っていくということで、そこに楽しさを学生が見出し、それがこの社会的インパクトラボの授業の重要な効果であります。

T　Then in the next slide, I want to share with you what small ways you can still have experiential learning or team-based learning or collaboration based or project-based learning. You don't necessarily have to have funding such as a social impact lab. And there are many ways that this has been done in universities and across the world, not just in America, in UK, Europe, Australia and Canada. This field called students as partners and, students as partners means the students have a partnership with faculty or the university administration to work on something that is a benefit to everybody. It is a partnership because they are not necessarily being told what to do by a faculty member. But they are together collaboratively working on something. It's experiential and it's again application of theory to practice, but they are very invested because they are giving back to the university as an educational experience.

I　先ほどの社会的インパクトラボについては、実際に行った際にはかなり高額なファンディングが必要で、たくさんの企業との連携があってこそこれが実現できるということです。 次のスライド＜スライド11＞では、実際にファンディングが必要でない、こういったＰＢＬ、課外派遣学習をどういう風にやっていけばいいのかというのが、こちらであげられています。 学生が大学のパートナーという風な考え方です。 これは、例えば学部のコースの設計や開発、それからコースの円滑化、ピア・ラーニングなど、こういったプログラムを、学生と学部の事務と共同で作っていくというやり方です。学生が実際にコース設計に参加するというところで、学生にとっても体験学習になります。

T　So, examples here show different ways of students as partners having high impacts. In many suggestions, students form a partnership with faculty in redesigning a course or developing any course. They become very strong in analysis and become experiential partners because oftentimes the students would have taken the course with the faculty member and then after they take the course, they become a partner to the faculty to improve the course because they know what the experience was. They have great contributions helping the faculty member understand how might they redesign the course to make the students understand it better because the students can explain to them, "In week three, the lecture covered this, but really don't understand that," so we might make some suggestions on how you might change the course a little bit. The students have worked very hard. They do research when redesigning the course with the faculty member. The partnership is very strong and it's resulted in many improved courses across the discipline, across different kinds of universities. It's an extremely economical model as well because the students are actually getting credit for doing this, so you are not paying the students, but they feel very privileged and honored to be able to contribute in this way.

❙　先に少し説明してしまったのですが、このパートナーとしての学生という学部の科目では、ここで
あげられているように5つのコースがあります。コースの設計開発、コースの円滑化、コミュニティ、
市民参加、機関プロジェクトや共同カリキュラムプロジェクトというような、学部教育の設計に、学
生に参加してもらい、共同して作っていくことで、学生にとっては、学内で体験学習をしながら単位
を取っていくというメリットがあり、また、大学にとっても、効率的に、経済的にも、学部教育の改
善にもつながるというところで、非常に高いインパクトがあります。効果としましては、学部生が大
学のカリキュラム設計に参加することで、別の同期の学生がそれを受けて、また何か改善点があれば、
すぐに先輩や設計した学生に話を通すことが出来ますし、それを受けてまたコースを再設計する際も
学生が参加することが出来ます。そういった意味で、双方向にメリットがあるという風に考えており
ます。

Ⓣ　Another example is institutional projects. This one was something that was done
at the University of Western Australia and it had great benefit. The university was
getting more and more international students coming to Western Australia, but the
experience of the international students was not that great. Students had different kinds
of experiences and so Western Australia used the students as partner's model to get
the students to work in partnership with the institution, administration, to understand
and to gather data about the international students' experience. Because they were
students and they were talking to their peers, they have much more information
than you can get from a survey. They provided recommendations to the university
administration by saying these are the most important things that are needed, from
institution to cultural, for international students and to increase international students'
experience. And those policies are now put into place and they have increased the
number of international students coming because they address many problems that
they have.

❙　4つめの機関プロジェクトに関しては、ノースイースタン大学ではなく、オーストラリアにあるウェ
スタンオーストラリア大学において実際に行われたプロジェクトです。これは、留学生が実際に大学
の留学生対象のプログラムの改善に関わるというプロジェクトです。どのような経緯でこれが立ち上
がったかと言いますと、当時ウェスタンオーストラリア大学に来た留学生が、なかなか馴染めなかっ
たり、自分たちの勉強したいことをなかなか提供してもらえなかったりということで、実際にこの機
関プロジェクトを立ち上げ、留学生自身が抱えている課題は留学生自身がよく分かっていることです
ので、コースの設計の際に留学生にも関わってもらうというプロジェクトになります。留学生ですと、
たくさん情報を持っているということで、留学生による留学生のためのコースづくりという形が出来
上がり、そうすることで、また新たな留学生が来る際に、広報活動という面でも効果があると考えて
おります。

T　Go to the benefits of partnerships. We see the benefits of students as a partner are great. They provide "diverse perspectives" and it also allows "increased awareness of others' experience," particularly for students. We're thinking about their contribution to the globe, to the world. They developed deep perspective through those kinds of experiences and there is a re-stabilization of power structure. Students don't always have to be at that bottom; there is an opportunity whereby students can really be great contributors in working with institutions. The personal and professional development of the students is extraordinary. They do develop those skills that we talked about earlier in the "Great Jobs and Great Lives" and they find that there is a deep satisfaction for them in knowing that they contributed to institutional change.

|　＜スライド 13 より＞ 学生が実際にコース設計に入るという、学生パートナーシップモデルのメリットがこちらにあげられている 5 つになります。まず、多様な視点というのがコースを設計する際に、取り入れられるという点がメリットになります。2 つ目が他者の経験に対する意識の高まりということで、教員だけがコースの設計に関わるのではなく、学生が入ったり、いろんな人が関わったりすることによって、コースの設計の際の意識が高まっていくというメリットがあります。3 つ目に、増加した学生代理店、エンパワーメントとありますが、こちらは、教員がトップにいて、教員と学生が師弟関係にあるものを平等にもっていくことによって、権力関係が良い意味で崩れていき、学生のためのやりやすい環境が自分たちで作れるというメリットがあります。これは、次の自己啓発や専門的能力開発に繋がっていき、組織としても、制度改革に直接貢献できるということころが、この学生パートナーシップモデルのメリットになります。

○生涯学習エコシステムについて

T　If we think about the next slide, the idea of what are the ways in which we could allow lifelong learning to happen through the ways in which we could design students' experiences. I just want to share with you the latest institutional mission that's happening at Northeastern University, called "Student Assessed Integrated Learning" or "SAIL." The philosophy is that learning has no boundaries.

|　これから CO－OP 教育を実際に効果的に実施していくための、生涯学習エコシステムの説明をさせていただきます。

T　This is the framework and what we are doing is starting from the new year 2018, every student at Northeastern will have an app on their phone. And the app has each of the different dimensions of development that we feel is important for whole student development and lifelong learning. So the dimensions include intellectual ability,

global mindset, civic engagement, which means social consciousness and commitment, professional and personal effectiveness, and well-being. Sub-categories are underneath. We also believe that there is an important set of core-cognitive processes. And foundational masteries which include those skills that we know are important. This whole ecosystem is applied to the whole university.

こちらのホームページは、ノースイースタン大学のホームページに出ているものですが、2018年からすべての学生の携帯でアプリケーションをダウンロードできるようにするそうです。その携帯のアプリの中に、このフレームワークが出てきます。このフレームワークの一つ目が、柔軟性で、次にグローバルな視野、マインドセット、考え方、次に、社会的な視点や認識、社会参加、それから、専門性や個人の専門を効果的に生かす方法、それから、よき人間であるということです。それぞれの教育目標を明確化して、学生たちに提示して、これが実際のコアになるもので、認知的なコアプロセスが設定されており、これを教育目標に据えています。

On every students phone they will have, when they turn on the application on their phone they can see different opportunities. Each opportunity describes which skills are related to the opportunity. The opportunities are entered by any educator at the university. I only say educator because it's not just faculty. Faculty can enter it, but so can advisors, coaches, employers, administrators, because we believe this is an ecosystem.

このアプリケーションは来年から導入されるのですが、学生たちが開くと、先ほど挙げた5つのスキルやそれぞれに関連した職業や企業がそこに出てきます。例えば、2番目のグローバルマインドセットに関心のある学生であれば、グローバルな視野を育成するには、その下にあるスキルセットという細かいスキルが必要です。これらの小さいスキルを身に着けるためには、こういった企業に赴き、体験学習すると良いなどと指定してくれます。ここの情報に関しては、教員も入力することができ、また、企業の雇用主も、グローバルマインドセットを育成することが出来るなどと入力でき、企業の募集などの情報を載せることもできます。教員やスタッフ、あらゆる教育者が関わって有期的に情報共有ができ、体験学習への糸口となるようなアプリケーションとなっております。

We call these opportunities "learning opportunities," because an opportunity can be short and they could maybe attend a lecture or movie, or it could be long, such as if they were working on a project. If they are short, when they achieve one of these, these are called dimensions. They complete one and they complete their opportunity on their app, and on their personal profile that opportunity appears. If it's more involved with many hours, then the color is darker. As they collect opportunities, this beehive grows because they collect more of these pentagons. They get a visualization of their

growth. Sometimes some students might be growing more in one way and another. For example here, this student has taken many intercultural ability opportunities but not many global, so they might decide I think I would like to look for more global opportunities. They're not graded and no one is judging them. But it gives them a visualization of how they're developing as a person together with their education.

ノースイースタン大学では、このシステムを、学習機会とよんでいます。これは、先ほども述べたように、最初は5つのスキル、枠組みが提示されます。そして、それを見つけるための体験学習が連動しています。まず、学生はそれぞれ1つずつ取っていき、1つ取ると、自分の携帯の中のアプリケーションにこのような図が出てきます。（スライド説明）そして、1つ体験するごとに、色が変わっていきます。最初は薄い色ですが、たくさん体験学習を行った学生は色がだんだん濃くなっていきます。学生が自分で、視覚的に弱い部分や重点的に伸ばさないといけない部分をアプリケーションで確認できるというのが、この新しいプログラムの特徴になります。

The center has been interviewing many faculties and administrators, advisors, athletic coaches, librarians, everyone on campus to find out from them how they are thinking about their roles as educators in this framework. How might they think about whole student development if they are teaching physics or they're teaching chemistry, or they're teaching literature or engineering. They have been very excited because they say our life as a faculty member or the advisor is in a silo, which means in your own little world. But the students are the ones that are going all over the place.

Now they see SAIL as an opportunity so that they can also be connected to the whole university and they can make their own course and be very relevant in having connections to other disciplines as well. They don't have to change their course. They just have to think about if they were describing, in addition to the principles of physics, what kinds of development you're learning by writing a report, or by collaborating in a lab. They can see how their student should be made aware of the broader skills and development in addition to understanding physics.

このようなアプリケーションが出来ると、成果を主体的に進化させるための体験学習を開拓できるようになります。そうすると、大学の教員の役割は何かと問われることになります。例えば、物理を教えている教員であれば、こういったシステムができることで、改めて自分の専門外の分野との学際的な連携を考えるチャンスが出来ます。また、教員社会に閉じ込められることなく、社会と連携を取りながら、新たなコースの設計や、新たな科目、単元の設定ができる、という点が、一つの教員の役割になってきます。

I think when I was here last time I mentioned the ASMU rubrics and different kinds

of categories of the dimensions of learning that come out of the lifelong learning skills and there is a list here and there has been much work done all over the world in thinking about students' development with different kinds of liberal learning outcomes such as intercultural practical skills, which includes all these things. What we think is that SAIL includes all of these, but instead of saying these are the skills, so we must teach them, we've turned it around a little bit to say we think learning happens everywhere, which means that students can have an opportunity to think about the ways in which they're connecting all of their learning experiences. And it gives them initiative and agency to know how they're developing. They don't know how they're developing if all they're doing in the class is just taking assignments and they're providing what the professor wants them to. But if they're constantly aware of the way in which their whole life is connected, throughout the ecosystem or institution, then they also have the opportunity to say how I am shaping my experience. They're still taking courses and are still getting a degree from them, but they're also developing as people and developing as global citizens. I'm going to pause here and give you a chance to have some discussion and I know that you have some interesting things happening here, as well. Maybe I'll stop here and after the translation, you can have some discussion.

| 来年から導入される新しいアプリケーションは、SAIL といい、Student Assessed Integrated Learning です。このアプリケーションには、次のスライドの４つの、知的スキルと実践スキルが身につくとされております。教員がこういったスキルを教えていかないといけないのではないかと考えるのですが、このスキルの目的は、学生が体験学習を通じて、自分たちでそれぞれの企業や現場の問題や課題を主体的に発見し、解決するためにはどういったスキルが必要かを自分たちで発見することで生きた学習が展開することが期待されています。

○質疑応答

F　大学がコーディネータ的な役割が大きくなるような気がするのですが、実際の大学での講義とかは質的な変化はあるのでしょうか。

T　I should clarify that the role of faculty and administrators does not change. Everyone

is still teaching, we're still teaching courses, we still have the curriculum and we still have the majors. What's changing is the way in which students are experiencing and the education. What's also changing is an opportunity to connect our courses to the broader framework such as SAIL.

I 　実際には、教員が講義をしたり演習をしたりなどはこれまでとは変わりません。変わるところとしては、それにプラスして、学生が体験学習をできることがまず一点と、それから、それぞれが専門で統括していったものが、教員間でつながりができてくるところが変化になると思います。

F 　ありがとうございました。ここが今日の一番大事な点だと思いますが、いろいろなアイディアは非常によくわかります。非常に先進的な、学生が中心になるというアイディアで、我々にとって大変啓発される教育法だと思いますが、それでも尚教員の役割は変わらないという点を伺ってほっとしております。ただ、具体的な現場ではどこにバランスを見出すのか。最近は非常に職業教育的なものが中心になってきている授業の現場ではこういう革命的なアイディアは特に効果を発揮するという印象をもっていますが、他方で、我々教員は、アカデミックな研究の成果を教育に還元する責務もあります。学生がテイクオーバーするこのような新しい環境の中で教員にはそのアドバイスをする以上に何の役割が残るのか。講義とのバランスをどう確保するのか。ケースバイケースにはなると思いますが、そこの基本をどう考えるべきかを伺いたいと思います。

My question is how far can you take forward these new ideas and practices where you say the students take ownership, while at the same time striking the right balance between that and retaining our role as the educators who are supposed to know what's best for them. We are also expected to draw from our research to provide academic depth to our teaching. I don't know if too much focus is on classes where the students 'take over' as it were, where we teachers play little more than an advisory role, wouldn't compromise that aspect of education.

T 　I should clarify that they are not taking over. Everyone still has a job, and faculties are still contents experts. You are the scholars of the discipline. The framework is a way of magnifying students' awareness, of connecting their experience. I think the challenge has been particularly in large research universities, the faculty living in the silo, living in the silo of your college or school, and sometimes it's different because the students are navigating across, so they are having different experiences, but faculty members will also have access to this app. The faculty will go online and see all of the different opportunities on campus. Let's say you are teaching a course. Can you give me the name of the course that you teach? Just for example?

F   International relations theory.

T   Ok. So you are teaching international relations theory. You might decide to put in an opportunity. In the app, that is not your course, but it is some element of your course. Maybe there is a very well-known speaker coming to the campus. You want to make sure that your students are aware of the speaker, so you put that opportunity in there. Another faculty member who is teaching in another discipline in another school is aware of your speaker and happens to connect it directly to her history course. She says I need to make my students aware, because this is a great opportunity for them to connect the learning history to the expertise coming from international relations. This is how it becomes ecosystems. You are still doing the same thing, she is still doing the same thing. But now the two are learning how to connect these experiences and the students also benefit greatly from being exposed to the ecosystem and various systems.

F   Just to follow up on that.

I agree entirely with the need to break down the silo which is a big issue.

The information is there already for everyone to see in printed form and on the web, and a great deal is passed on by email. I see that the app that you mention could be another helpful tool in a different way which makes good sense, but cannot see how much of a difference it could really make when the problem as we see it is not the lack of tools, but the lack of culture or willingness to use them. How in your view can we make these systems actually work?

T   I think the key thing is communication. Communication is absolutely key from the very beginning. We have been providing information sessions, focus groups, and surveys to everybody (all educators, students and staff) on campus. Based on all the data, so they have a huge assessment team that is going through all data. We have identified challenges.

We started to develop some institutions to support faculty. Bringing faculty together from the silo as well as the staff to get them engaged in a conversation and say ok, so let's come to the table and think of what introducing opportunity looks like. I think it is important that we do this slowly and based on very informed data, in an informed way. But you are absolutely right, and we have thought about of course all of the challenges you describe.

I   最初にお伝えしたいのは、学生が主になりきるというわけではなく、教員は教える科目の専門職には変わりありません。重要なのは、SAIL を使って何ができるかということ、学生にとって体験する

ことをより濃くするようなことができるのではないか。例えば、細谷先生は、国際関係論を担当されているかと思いますが、外部から有名な講師を招き、その情報をアプリに載せます。そして、例えば、別の歴史の先生が、このスピーカーは自分の授業にとても役に立つということで、共有し、いろんな科目で先生方との結びつきが強くなっていくというのが、効果としてあります。このようなことでエコシステムに繋がっていくことが、大きな効果だと思います。先生も、実践に移していくのは、難しいという課題を経験されまして、その中でも、一番重要なのは、コミュニケーションに尽きるのではないのでしょうか。教員だけではなく、職員や、図書館の方など、大学に関わるいろんな方にお話を聞いてセッションをしたり、特に重要なことに関しては、話し合うグループを作ったり、膨大なデータを集めて、そのデータをもとに、どのようにしたらいいかということで動いてきました。

　コミュニケーションの取り方としては、大学の学内の方に、アンケート調査をしてそれを回収した後に、分析する専門チームを組織し、特にコミュニケーションを必要とするところでは、支援室を設置することで、それぞれの学部から教員を招いてその場でコミュニケーションをしっかりとっていただく。そのように、別の形で支援チームを設置しました。

F　I have a question. I want to thank you for bringing some helpful ideas to help us build on what I think we're starting to do. And based on what you told us three years ago. But on page three, slide two, the Language Center sponsors are called PEPIS seminars, Practical English for Professional Interaction Seminars. And we bring professionals from various fields onto campus to talk with first-year students. In particular, with the engineering and medical faculties, what they told students are some of the same values or skills you need going forward into the workplace. These are fine as Japanese companies or doctors or whoever maybe. So the Language Center does have these once a semester and then three years ago we started project-based learning classes with the engineering faculty. Akashi-sensei over there was one of five engineering professors who volunteered to collaborate with two English language teachers from the Language Center. So you have two English teachers and two engineering professors who collaborate and students work in teams to create projects and to collaboratively work to create through detail-oriented teamwork. This is really a great thing that the engineering professors have never done. The last point is we tried to carry that PBL course work into the new GCS program. The things are collaborative, students learn leadership and initiatives, but it is all by collaboration with faculty, students, and community people.

I　為になるお話をありがとうございました。配った資料の3ページ、スライド2にいろいろなスキルの事が書いてありますが、語学センターでもこれまでPEPISという講演会を1年に1回いろんな学部でやってきました。今までは、工学部や、医学部で外部から講師の方をお招きして、共通教育を履修している1年生を対象に講演を行ってきました。そこでも、外部の講師の方が特に強調されていた

のは、ここに並んでいるようなスキルでしたので、そこにとても感銘を受けました。また、同時に、3年前から工学部と語学センターで連携して、いくつかの学科で課題探求型授業を行ってきました。これは、工学部の専門の先生方と語学センターの英語の先生方で連携して、専門的な内容を英語で学ぶという授業を実践してきました。その授業の中で、こういったスキルを学ぶということを、何度か学生たちに伝えてきましたし、その発展型として、国際地域学部での同様のPBLの授業でも、そこから繋がるように展開しています。連携、学生のリーダーシップ、意思を持って物事に取り組む力を重要視しています。

T   I had a great conversation yesterday at lunch time with a group of students here and it was really exciting because at one point I asked them a very unusual question, which they said no one had ever had that kind of conversation with them. My question to them was "Can you think of a point in your adolescent life, whether high school or right now in university, where you felt you profoundly changed your understanding and your international, emotional, social development was profoundly changed in some way? It was changed so that now it affected ways in which you think about things and you make choices? For a long time they were silent because they had to think really hard about what that meant. But the responses afterwards were fascinating because they were very thoughtful and they are thinking in this way, they were thinking in a very integrative way. Because one example was, one student said initially I thought I was going to enroll in this program. I thought my goal was to learn how to speak English. But what happened to her was when she went to study abroad, she was in a class with other students from other countries. They started to articulate the ways in which the subject they were studying was related to their identity and their culture, what it meant from their educational system and their country and each person had an interesting contribution. She said "For the first time in my life, I realized my goal was not to learn English. My goal was to use English as a vehicle to understand my role, my identity, and how I represent myself as Japanese person in relation to understanding the discipline, understanding something that I'm studying and to be able to have that conversation, across different kinds of cultures and nationalities. She said to her it was a great joy to realize that that wasn't the end, to study English, but it was just opening up the doors for her.

I   昨日お昼休みに学生と話す機会があり、変わった質問を投げかけました。あなたの高校であったり、大学であったりの青年期に、感情的に大きく変化した経験はありますか、という質問をしたところ、とても長い間沈黙がありました。みんな、何があったか考えている様子でした。その後何人かの学生が話し出したのですが、その中でも一人の学生が、この学部に入った目的が、英語を話せるようになりたくて入りましたとのことでした。ただ、留学を経験された学生なのですが、実際に現地に行って、

授業を取っていく中で、他の国から来た学生と交流したり、授業の中で英語を話しながら自分の国のアイデンティティや文化と繋げながら話したりしているところを見て、自分自身も最終的な目的は、英語を話すことではなくて、英語をいろんなことを学ぶためのツールとして、学べることに気づきました。最終的に英語を学ぶのがゴールではなくて、使っていろんなことを学んだり、自分の立場や役割を理解したりしていくことが、最終的な目的であることに気づきました。

F　Thank you very much for your presentation. You touched upon some topics like visualization of progress and student empowerment. That is also the part of my research and things I'm really reading. You can imagine how much I am interested in your idea or SAIL.

　　I want to ask, if I wanted to take initiative to start something like course transformation. What could be your advice?

I　先生のお話の中で、特に学びが視覚的に見えるだとか、学生のエンパワーメントだというところが自分の研究と結びつくので、SAIL のお話はとても興味深く聞かせていただきました。一つ、授業を改善していくという話がありましたが、自分自身でしていくのであれば、どういうアドバイスがありますか。

T　When you say course transformation, it would be a single course, revision?

F　Yes, for example Microeconomics.

T　My first advice to you would be it depends. Because I have been involved in many different kinds of course transformation at many different labs. I think the most important thing really is to first start with an informed goal, that is you have to be acting on real data and evidence, because there has to be a reason why a course would be transformed in its current state. What is successful about the course and what is not successful about the course in relation to the learning outcomes that you desire for students. I would say that every strategy and design has to be done in a data-informed way, evidence-informed way. The other advice would be thinking at the administrative level. What would be the impact of course transformation and relation to the rest of the curriculum? How does it benefit the department, the

other courses, the students, colleagues? How do you prioritize what is most important. Because full course transformation is a large endeavor, so think out the timeline and prioritize what is absolutely not negotiable in terms of what must happen. What else are things where it would be great but not necessarily a deal breaker. Decide what are the measurements that you are going to take to give you evidence that the transformations is working. That is different from course assignments and assessments.

F　Thank you very much.

I　データやエビデンスを大事にしないといけないと思います。なぜこの授業を改善しなければいけないのかというデータをきちんと持って、どこ部分が今学生にとってうまくいっていないのかということを分析する必要があります。そのデータを元に戦略を考えていく必要があります。もう一つは、この授業を変えることによって、その他のカリキュラムにどういったインパクトがあるかを考えなければいけません。その科目を変えることで、どういう風に良いことがあるか、そして、時間にも限りがあるので、きちんとタイムラインを作り、優先順位を決めて、この部分は妥協が出来るや、この部分はどうしても交渉が難しいなどという点を、データをもとにクリアにしていきながら、戦略を考えていく必要があります。

2．国際地域学部の成績評価基準と GPA の扱い

国際地域学部教務学生委員長　月原　敏博

F　＜国際地域学部教務学生委員会関係資料より＞　今右側に赤で書きましたが、国際地域学部では、これが正式な評価だとは思っておりません。従来から、60 点で単位を出してきており、また、留学し受講した科目を認定した時の AP（Approved Pass）という成績は、事実上 Pass に相当するものになります。明確には、手引きには書かれてはおりませんが、従来の流れから行くと、60 点以上が Pass という扱いになります。

　問題は、右のほうに並べてみました。ここでは、講義の評価、表現が異なりますが、サンディエゴですと、Credit という評価で、否にあたるのが no credit、"NC" という評価になります。また、バークレーの場合は、P が Pass で、NP が Not Pass という評価にあたります。

　これらの大学ですと、GP2.0 あるいは 1.7 に合否のラインがあります。国際地域学部の GP2.0 のラインと比べると 13 点のズレがあります。これが非常に気になっております。つまり、今、学部としての課題は、GPA2.0 を卒業要件にいれていくのかどうかということを検討していかないといけない状態です。GPA2.0 を卒業要件とした場合、従来の流れで、60 点で単位を出しているということと、GPA 平均で 73 点以上取らないと、卒業できないという矛盾というかズレが 13 点も差があります。その二重の基準をどういう風に設定できるのかという問題があります。参考までに、下の箇所に、カナダの大学の例がありますが、そのものさしが大分違います。GPA2.0 を卒業要件にしたとしても、

55 ～ 59％が GPA2.0 のレベルで、かつ、50 点代でも Pass になっています．また、Pass でも、点数は違いますが、conditional pass と satisfactory pass の 2 種類あります。

　下のクイーンズユニバーシティの場合でも、50 点台のものに、GPA をいくつか与えています。ここの大学とはかなり違いますが、従来の福井大学の成績のつけ方、60 点で単位を出すという方法は、米国やり方ではないほうが、私たちの過去の方法に近かったのではないかと思います。

　とにかく、ここの差が大きいままでは、卒業要件に GPA2.0 を持ってくるには、難しいのではないか。特に、福井大学では、従来からいる学生と、新しい学部の学生と評価の仕方を大きく変えなくてはいけない、あるいは、学部によって、ズレが大きいと、共通教育で非常に困ります。ですので、単位に合否のラインを 73 点にもっていけばいいわけではならないですし、非常に悩んでいるところでもあります。本当は、文科省レベルできちんと考えないといけないところだと思っているのですが、何かアドバイスがあれば教えてください。

T　I might to start by saying, in the U.S., the topic you are bringing up is a very emotional topic.

　We have this joke that we usually call it, "the third rail topic." I don't know if you have it in your country. The third rail in a train system in America is the one that has the electricity for the railroad. So, you don't want to touch it because you get electrocuted. When we talk about third rail topics, that's what we mean. Grading is the third rail topic in America. I guess before I provide some comments, I have a question for you. The system that you have here for Fukui, is that similar to the rest of Japan? This is a third rail topic?

I　アメリカでも、このようなトピックはいろんな人が、感情的になるテーマで、ジョークで"サードレールトピック"というニックネームがついています。アメリカでは、鉄道のシステムで 3 つ目のレールがあり、そこには電流が発しているので、触りたくないという意味で、触れたくないトピックという意味を表しています。

　ただ、一つ確認したいのですが、このやり方は他の日本の大学でも、このようなシステムが主なのでしょうか。

F　私が細かく調べたわけではなく、横井先生から教えていただいたことですが、日本の大学でもこのような形を採用しつつあり、国立大学でもそのほうが多いという風に採用し始めています。しかし、もう一つのパターンがあり、それは大学によってバリエーションがありますが、60 点あたりに GP2.0 をもってくるのと、下のカナダのグラフのような GP2.0 を 60 点に合わせる形で作りつつある大学と 2 種類あります。日本国内で混乱というか、そのまま許されているという感じを受けています。

T　The reason why I asked this is because, so let's look at "San Diego State" and "UC Berkeley."

　In America, there is just as much variation across the universities. Places like

"Berkeley" and "San Diego State," but some universities have a much higher cut-off and where they draw a line for failing. There are other universities that are much lower, so there are many universities whose profile look like the one you have here for degrees and where some are higher, some maybe lower. They are just all over the place. Because in America we have so many different kinds of institutions. So from that stance, I hesitate to give a recommendation because your grading system has to represent what you as institution believe students must achieve in order to achieve what you believe is quality here in Fukui. But also across the different disciplines, there might be variations and differences as well. Some institutions have a system whereby we might technically pass if you are above that 60. However for your major, you can't be a 60. You have to show that for your major study, you have a much higher average. So they want to make sure that you are getting a degree in a field that you are indeed qualified. That you have developed mastery of that field.

| アメリカ国内でも、日本と同じように、大学間で大きな違いがあります。
　バークレーやサンディエゴの大学では、これより下は、否だというシステムが設けられていますが、いろんな種類の大学がありますので、一概にこれと言うのは難しいです。
　福井大学で決めたこの内容は、もちろんアメリカの大学でもあるところはありますし、重要なのは、どのような学生を育てたいか考えたうえで、決めていくのが一番良いと思います。またもちろん、学内では、他学部での調整などもあると思います。例えば、60 点以上で、合格とするところもありますが、自分の専門分野の科目を取るときは、60 点の平均点ではだめで、それより高い平均点をとって、学位を与えるとしているところもあるそうです。

T　I think that is a related issue as well. In the U.S., some faculty will grade on a curve and other faculty will grade based on a criterion reference framework. Also, we have impact on the ways in which institution's grades are sometimes inflated or not. That's a very emotional topic in America because in the best-case scenario we try to encourage institutions or departments and faculty to grade based on a criterion reference framework. But some disciplines will just default the degree onto a curve because they feel that they must restrict the number of "A" s that they are giving to the detriment of a graduating class or to detriment of the students because, let's say, you have one class that has students who are very high achievers, but if you are grading on the curve everyone can't get an A. On the other hand, if you have the next year's students that are not as high achieving. In fact they are quite deficient. You are still giving the same grades. That becomes problematic. That leads to what in America we call it "grade inflation." I would say that that's become quite a big problem amongst some of the competitive universities where faculty will just stop giving "C" s.

I mean only give "A"s and "B"s. Which is why I think more and more institutions are looking at the A - C value rubrics. We are looking at initiatives like SAIL. Because we want to say, other than grades, what else can we say our students have been able to do.

I　アメリカの中でも、成績をつけるのにいくつかの方法があります。例えば、カーブ方式であるAを出す人数を決める方法と、こういう項目を発生した学生には成績をつけるという方法があります。ただ、カーブ方式にしてしまうと、とても優秀な学生がいる学年であったり、そうでない学年であったりしても、結局Aを出す数が決まってしまうという問題があります。アメリカでは、グレードインフレーションと言って、良い成績のインフレ状態、つまり先生方も、Cを付けるのではなく、AやBを多くつけるという問題が起こっています。このような問題がありますので、A-Cのルーブリック評価や、SAILというアプリを使うことで、成績だけではなくそれ以外の基準で学生を評価するということを同時に行っています。

F　ありがとうございます。
　2番目のスライドに関係しますが、GPAは担当科目ごとや、担当教員ごとにつけることができ、アメリカのホームページを見ると、全科目に、平均成績とグレードごとの学生数の割合が表記されています。そして、この先生のこの科目は、平均が良いなど、学生が自身でチェックできます。そうすると学生の興味もインフレ状態になるのではないかと思います。逆に第3者からチェックするということはおかしいのかもしれないですが、こういうことはするべきでしょうか。

T　I think that is big problem. That is my personal opinion for the very reason that you just described. Students will look at the paper and say which the easy grader is. I won't name the name of the institution, but there is one institution in the U.S., one of the elite universities got into a lot of problems because they showed the professors and percentage of grades that they gave. The students start to game the system. They would just select the professor based on the grades they give. This is when they have "grade inflation." They were all giving "A"s and "B"s because the other professors gave those grades. Because of this the students were signing up for their courses, so they entered this vicious cycle. And it became a huge problem institutionally.

I　アメリカの中でも、良い大学と呼ばれるところで、同じようなシステムを使って、どの先生がどれだけAを出しているかを公開しているところがありましたが、それをすることによって学生が、良い成績を出す先生ばかりの授業を選択し、他の先生の授業を選択しなくなるという悪循環になった。そうすると、今まで厳しく評価していた先生も、優しく評価するようになり、グレードのインフレが起こってしまいました。

3．国際地域学部で柱としてやっている PBL の概要の紹介

<div align="right">国際地域学部教授・課題探求プロジェクト委員長　　木村　亮</div>

F　特に質問があるわけではないのですが、今国際地域学部で柱としてやっている PBL の概要について話をします。今はまだ 2 年目の学部であり、1 年生が 2 年生に上がったばかりですので、決してまだ完成しているものではないため、今回は話題提供という形でお話ししたいと思います。

　私たちが考えている、1 年から 3 年の PBL の流れがここに示してあります。1 年次は Basic A（基礎 A）と Basic B（基礎 B）とありますが、まずは問題に気付くこと。そこからスタートします。大学 1 年生は、周りの経験に対する感覚が乏しいので、そこから入らなければいけないというのが、Basic A と Basic B です。

　Basic A、Basic B、Realization（気づき）とありますが、Basic A は、社会の現場で何が起きているか、そこで活動している人が、何を考え、何を問題としているのかをヒアリングすること、そして、Basic B は、子供にストーリーテリングをするプログラムですが、自分がこれまでに得た英語のスキルを他人に伝える経験をするという、二つのプログラムを 1 年次に行います。2 年次は、Overall Understanding（総合的な理解）とありますが、自治体などを対象に、時間をかけて何が問題の背景にあるのかを総合的に理解してもらう 1 年間のプログラムです。それを踏まえて、3 年次は、実際に、学生に現場で具体的な課題の解決に取り組んでもらい、解決策の提案を行ってもらいます。このようなプログラムを通して、最終的に、4 年次に卒業研究を行います。このような流れを今計画しております。

　次に、どのような時期に授業をするのかというと、Basic A と、Basic B は 1 年次の第 3 クォーター、第 4 クォーターに行います。2 年次以降は、セメスターごとに 1,2,3 と進んでいきます。基本的には、特定の日の午後を空けておく、授業をいれないという形で時間を取っていきます。実際には、授業時間以外に学生は活動することも行われています。

　＜スライド 5 より＞これは、昨年度の Basic A のプログラムですが、2 カ月間通して行ったもので、企業や自治体など、特定のテーマごとに、学生が数人のチームを編成し、2 か所ヒアリングに訪問します。テーマは、右側にありますが、例えば、福井の企業の海外進出や、企業における人材の育成、women empowerment、商業地区の運営など、そのようないくつかのテーマに即して、何を聞きに行くか、何を引き出すかを学生が事前に準備し、企業や自治体にヒアリングに行きます。そして最終的に、訪問した 2 か所を総括して発表を行います。発表会には、ヒアリングに訪問した相手先にも来ていただきます。

I　一つ質問ですが、ヒアリングとは、どういったものか教えていただきたいと思います。

F　例えば、ある企業が、海外進出しているとすると、学生が事前にその企業が何を行っているか、その業界が何をしているかを調べたうえで、何が、海外進出へのきっかけとなったのか、そして、どういう苦労があったか、実際進出してみて、どのような問題が生まれたかなど、学生が準備をする中で、考えてもらい、それを、相手の企業の担当者にぶつけるというのがヒアリングというものです。

T　Thank you.

F　ストーリーテリングという英語でする授業です。基本的には、英語の童話や民話を紙芝居や、演劇の形式で子どもたちに伝える、主に小学生の子どもに伝えるものです。

　最後ですが、これは今年の2年生が取り組んでいるものですが、2年生になると、GCSはグローバルアプローチとコミュニティアプローチという二つのアプローチに分かれます。それぞれについて、PBLに取り組みます。内容は、アプローチによって性格が違いますが、グローバルアプローチでは、酒プロジェクトという、福井の地酒を造っている企業、あるいは、販売店、米を作っている企業を訪問し、ヒアリングし、最終的に英語でパンフレットを作成します。実際にお店や、人の集まるところに作成したパンフレットを置いて、見てもらおうとするものです。もう一つは、インターナショナルフェスティバルとありますが、福井では、10月に行われるもので、その具体的な企画を作成し、それに取り組み、企画を実施するというプロジェクトです。一方で、コミュニティアプローチでは、3名ずつぐらいのチームに分かれ、表にある10個のプロジェクトの中から選択し、それぞれの"カウンターパート"という、取組の相手先のところへ継続的に訪問し、そこで起こっている課題などを学生自身がヒアリングしたり、調査をしたりして、起こっている問題や背景を理解してもらいます。これは、3年次に具体的に"カウンターパート"との間で、課題の解決に向けた提案に取り組みます。今はスタートしたところですので、具体的な成果はまだわかりませんが、このような形で進行しております。

T　Thank you very much. I am curious to know, what is your framework? How did you describe the ways in which these projects are set up that make them PBL?

I　ただ情報を集めて発表させるということではなく、PBLを通じて学生達がどのように発展させていくのかというフレームワークのようなものやどのような設計があるのかを教えていただければと思います。

F　フレームワークについては、語っていなかったのでわからないと思いますが、最初に言ったように、日本の大学で問題になっているのは、大学と社会との接点がないということです。社会に出た後、学生が、考えてもいなかったようなことに出会うという問題があるので、今まで目を向けていなかったものに目を向けてもらうというのが、1年目のプログラムであります。その中で、単に大学でレクチャーを受けるだけではく、具体的に外で何が行われているか、何を行っているかということを見ながら、学生が社会への意識を高めていく、そして実際に学生自身がそこで何かが出来るという自覚を身に着けてもらいます。その中で、将来どのように進んでいくのかを外での取り組みを経験しながら考えていくというのが基本的な考えです。そして、それに伴い、コミュニケーション能力やクリエイティビティなどを高めていくのが目的です。

T　Thank you. I think these projects are so exciting. I appreciate your desire in how students become directly engaged with society and with different kinds of social impact projects. I guess if I were looking for the possible recommendation in continuing the cycle, there might be some forms of information that you might start collecting that give you or convince you in what ways is the strategy helping the students achieve, for example, these outcomes. Perhaps, there is a way maybe you already have thought about this. You could look at some of the value rubrics, A-C value rubrics, which I think we had talked about last time. But if you look at the start by comparing some of the categories of A-C value rubrics such as intellectual tactical skills, the personal social responsibility, think about some of those, but also if there are certain kinds of outcomes in the SAIL framework as well that you think are helpful because they are similar. Maybe choose for a start what are your top ten priorities, but really important ones that you believe the PBL project should help achieve over the four years. Then once you pick those top ten, or top other whatever, ask yourself, "What kind of information will tell us at Fukui what the students are achieving? What does it look like, when they are achieving?" You might decide what kinds of artifact you might look for. Like you might look at and analyze some of the ways in which their writing, the report, the phrasing of their interview questions or their approach for deciding how to interview, what kind of information they are getting. I am imagining that still becomes more sophisticated as they progress through the degree program. So I guess asking for what does it look like when you are tracking change over time. It would be really exciting because as a program, you could talk in relation to these different qualities. Here is what student looks like. That is separate from the grades or any other kinds of marks they are getting, but it is programmed information. It could be a powerful way of embedding an assessment cycle, a qualitative assessment cycle systematically for the program, institution, and any kind of review process.

I　PBL の授業を進めていくことで、学生たちが社会と接点を持ったり、社会的にインパクトのある ようなプロジェクトに携わることができた りなど、とても素晴らしいと思います。私 から、いくつか今後持続的にプログラムを 改善していくために提案があるのですが、 今日フレームの中で触れた A-C のルービッ クや SAIL でも説明した内容ですが、その 中で例えば学生たちに、最終的に達成して ほしいテーマをいくつでもよいので、集め て、それを身に着けるために、どういう軸

で評価するとそれが身についたかということを考えていくのも一つの手法だと思います。例えば、それがどのようなレポートを書くか、インタビューする時に、どのような質問を投げかけているのかなど、不都合な点はいろいろありますが、学生たちが、時間の経過とともに、どういう風にスキルを身に着けていくのかというのを報告していくのもいいのではないかと思います。

F　ありがとうございました。

〈参考資料〉

Slide 1

Institutional Strategies for a
Student-Centered Learning
Ecosystem

学生中心型学習エコシステムの
ための制度戦略

Kathy Takayama, PhD
Center for Advancing Teaching through Research
Northeastern University

1

Slide 2

Gallup-Purdue Great Jobs/Great
Lives study (2014):

What matters most during the
university student experience for
long-term outcomes?

長期に渡り成果を出すために、大学生
の経験の中で最も重要なのは何です
か？

2

Slide 3

Life in College Matters for Life
After College

大学時代の経験は大学後の生活の質に影響
を与える

by Julie Ray and Stephanie Kafka

New Gallup-Purdue study looks at links among college, work, and well-being

WASHINGTON, D.C. -- When it comes to being engaged at work and
experiencing high well-being after graduation, a new Gallup-Purdue
University study of college graduates shows that the type of institution
they attended matters less than what they experienced there. Yet, just
3% of all the graduates studied had the types of experiences in college
that Gallup finds strongly relate to great jobs and great lives afterward.

3

Slide 4

The most important factors for
workplace engagement (great jobs)
and well being (great lives) were…

職場でのエンゲージメント（好条件の仕
事）と幸福（素晴らしい人生）の最も重
要な要因は次のとおりです

4

Slide 5

1. A mentor who cared about you, made you
excited about learning, and encouraged you to
pursue your dreams
1.あなたを気に掛け、勉強に興味を持たせ、夢を追い
かけるあなたを励ましてくれるメンターの存在

2. Experiential learning:
• one semester or more in length
• can include extracurricular activities, jobs and
internships to apply classroom learning
2.体験学習:
• 1学期以上の期間に渡って継続される
• 授業内容を応用した課外活動、就職およびイン
ターンシップを含んでいる

5

Slide 6

How can universities create
"learning ecosystems" that
can lead to "great jobs" and
"great lives"?

大学はどのようにして「好条件
の仕事」と「素晴らしい人生」
につながる「学習エコシステ
ム」を作り出すことができます
か？

6

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Important qualities of graduates cited by 1000 employers in 25 industries across the U.S.:
米国全土の25の産業における1000人の雇用者が列挙する、卒業生に求める特性:

Creativity	創造性
Detail-orientation	几帳面さ
Flexibility/adaptability	柔軟性/適応力
Initiative	主体性
Leadership	指導力
Tactfulness	思いやり
Willingness to learn	学習意欲
Work ethic	労働倫理観
Teamwork	チームワーク力

7

体験学習

8

Social Impact Lab (社会的インパクトラボ):
Experiential Philanthropy Education (EPE)
経験豊かな慈善教育
Director (ディレクター): Rebecca Riccio

http://www.northeastern.edu/impactlab/

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Students-as-Partners
パートナーとしての学生

- Course design / development
  コース設計/開発
- Course facilitation / peer learning
  コースの円滑化/ピア・ラーニング
- Community/civic engagement
  コミュニティ/市民参加
- Institutional projects
  機関プロジェクト
- Co-curricular projects
  共同カリキュラムプロジェクト

10

Course Transformation　コース転換

Brown University:
Microeconomics
ブラウン大学:
ミクロ経済学

- Students as partners and co-architects of learning experiences
  パートナーとしての学生と学習経験のある共同企画者
- Impact on learning gains, study skills, and interest in the discipline
  学習意欲増進、学習スキル、専門分野への関心への影響

11

Benefits of partnerships:

パートナーシップのメリット:

12

- diverse perspectives
  多様な視点
- increased awareness of others' experiences
  他者の経験に対する認識の高まり
- increased student agency, empowerment
  ("my voice matters")
  増加した学生代理店、エンパワーメント
- personal/professional development
  自己啓発/専門的能力開発
- contribution to institutional change
  制度改革への貢献

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Lifelong learning ecosystem

生涯学習エコシステム

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Student Assessed Integrated Learning (SAIL)

https://sail.northeastern.edu/

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Association of American Colleges & Universities
A VOICE AND A FORCE FOR LIBERAL EDUCATION IN THE 21ST CENTURY

Intellectual and Practical Skills
知的スキルと実践スキル

- Inquiry and analysis
  研究と分析
- Critical thinking
  批判的思考
- Creative thinking
  創造的思考
- Written and oral communication
  書面によるコミュニケーションと口頭による
  コミュニケーション

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Association of American Colleges & Universities
A VOICE AND A FORCE FOR LIBERAL EDUCATION IN THE 21ST CENTURY

Intellectual and Practical Skills (continued)
知的スキルと実践スキル (続き)

- Reading
  読書
- Quantitative literacy
  量的リテラシー
- Teamwork
  チームワーク
- Problem-solving
  問題解決

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Association of American Colleges & Universities
A VOICE AND A FORCE FOR LIBERAL EDUCATION IN THE 21ST CENTURY

Personal and social responsibility
個人的および社会的責任

- Civic engagement – local and global
  市民参加 - ローカルおよびグローバル
- Intercultural knowledge and competence
  異文化間の知識と能力
- Ethical reasoning
  倫理的な推論

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Association of American Colleges & Universities
A Voice and a Force for Liberal Education in the 21st Century

Personal and social responsibility (continued)
個人および社会的責任 (続き)

- Foundations and skills for lifelong learning
  生涯学習の基礎と技能
- Global learning
  総合学習

Integrative and applied learning
統合学習と応用学習

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Thank you

k.takayama@northeastern.edu

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20170525

Matters related to GCS, Academic/Curriculum Committee　国際地域学部・教務学生委員会関係

１．"Accreditation"-related issues　質保証に関すること
（１）"Normal Grading" and "Pass/Fail Grading" with Score
　　　　通常評価（13 段階評価）と合否評価（2 段階評価）

　GPA2.00 の卒業要件化にあたって，13 点差問題※をどう解決できるか？
　※注）現状では，GP2.00（73 点以上）と単位認定（60 点以上）とにスコア（100 点満点）で 13 点
　　　　もの差がある。卒業要件となる累積 GPA の値と通常評価及び合否評価（Pass/Fail Grading）の
　　　　関係はどうあるべきか？
　GPA 卒業要件の限定的な適用（一部の科目群に対してのみ GPA2.00 を卒業要件に課す）はだめか？
　一部の科目を通常評価でなく合否評価で受講できる（GPA への影響が小さい）制度の導入はどう
　か？（後者の合否評価は現状の福井大学国際地域学部では留学先で取得した科目を認定する場合
　しか想定していない。）

（２）How to minimize the difference of grading between courses/instructors
　　　　科目間及び教員間で，成績の付け方・評価分布が異なる問題への対処法

（３）For Students look difficult to graduate　卒業困難が予想される学生への対応
　（ⅰ）Minimum number credits for course registration　履修登録単位数の下限
　（ⅱ）Recommendation of Long Absence/Withdrawal　休学・退学勧告
　（ⅲ）Students who continue Long Absence　休学を繰り返す学生

（４）Improvement of numbers in course code　科目コードのナンバリングとその見直し

　　　　現状では，ナンバリング自体にあまり意味がない。システムや時間割の都合。
　　　　共通教育科目の位置づけに関する他学部との事実上の相違

２．Service for Student and Office Structure　学生サービスと事務体制
　（１）Online Service (web registration, etc.) and enquiry counter
　　　　　オンラインサービスと窓口サービス
　（２）Support for Foreign Students　留学生に対するサポート体制

３．Course/Instructor Evaluation by students　学生による科目・教員評価

Grading Scale in GCS, Fukui

Grade	Score	GP	Credit
A+	98 - 100	4.00	
A	95 – 97	4.00	
A-	90-94	3.67	
B+	87-89	3.33	
B	83-86	3.00	Pass
B-	80-82	2.67	
C+	77-79	2.33	
C	73-76	2.00	
C-	70-72	1.67	
D+	67-69	1.33	
D	63-66	1.00	
D-	60-62	0.67	
F	0-59	0.00	Fail

San Diego State University

G & GP	CR of NC
A 4.0, A- 3.7, B+ 3.3, B 3.0, B- 2.7, C+ 2.3, C 2.0,	CR（Credit, 合（認定）： A〜C ）
C- 1.7, D+ 1.3, D 1.0, D- 0.7, F 0	NC（No Credit, 否（不認定）： C-〜F）

University of California, Berkeley

G & GP	P of NP
A+ 4.0 A 4.0 A- 3.7 B+ 3.3 B 3.0 B- 2.7 C+ 2.3 C 2.0 C- 1.7	P （Pass, 合： C-and above C-)
D+ 1.3 D 1.0 D- 0.7 F 0.0	NP （Not Pass, 否： below C-)

Pass (satisfactory pass)

Pass (conditional pass)

Failure

McGill Univ., Canada

https://www.mcgill.ca/study/2015-2016/university_regulations_and_resources/undergraduate/gi_grading_and_grade_point_averages

1.60 or above
3-year degree: B.A., B.Sc., B.Cmp., B.F.A., B.P.H.E.

1.90 or above
4-year Honours degree: B.A.(Hons.), B.Sc.(Hons.), B.Cmp.(Hons.), B.F.A(Hons.), B.P.H.E.(Hons.), B.Mus.

Queen's Univ., Canada

http://www.queensu.ca/history/sites/webpublish.queensu.ca.histwww/files/files/undergraduate/courseinfo/gradingscheme/QueenOfficialGradeConversionScale.pdf

Slide 1

Hybrid Campus in Fukui!

PBL Project at GCS

25.5.2017

Slide 2

【Flow of the PBL courses】

1st yr	Basic A Basic B	Realization	現場で考え、行動している人から直接に知識を引き出し、また知識やスキルを他人に伝える経験を通じて、現実社会のあり方に「気づく」。
2nd yr	Ⅰ Ⅱ	Overall Understanding	特定の企業・自治体等を対象に、時間をかけてその内外の環境についてヒアリングや調査を行い、対象を総合的に理解する方法を身につける。
3rd yr	ⅢA ⅢB	Challenging the problems	具体的な課題を設定し、その解決のために企画の提案・実行・評価、ないし調査や試行を通じた解決策の提案に取り組む。
4th yr		（Summary）	**Graduation Project**

Slide 3

	Q1	Q2	Q3	Q4	Class
	第1クォーター	第2クォーター	第3クォーター	第4クォーター	授業時間
1st yr			Basic A	Basic B	原則として毎週金曜3・4限
2nd yr	Ⅰ		Ⅱ		原則として隔週水曜3・4限
3rd yr	ⅢA		ⅢB		原則として隔週水曜3・4限
4th yr	ⅢC				原則として隔週水曜3・4限

Remarks:
・Ⅲ C: Global approach students after their study abroad program.
・For visiting corporates & local govt offices, a class might run later than 5th period. And depending on the theme, students may have to meet during the weekend and other extra times.

Slide 4

2016 PBL Basic A（Freshman：3rd quarter）

WEEK1
- General introduction of the course
- Info on the visiting places & prior studying

WEEK2
- Consider the content of hearing
- Making the hearing sheet

WEEK3
- 1st hearing

WEEK4
- Reflection of the 1st hearing
- Preparation for the 2nd hearing

WEEK5
- 2nd hearing

WEEK6
- Summary of the 1st/2nd presentation
- Preparation for the final presentation

WEEK7
- Final Presentation（Invite high school students, and visited locations）
- Instruct the students to submit their report

Gr.	Theme
A1	Fukui corporates overseas expansion
A2	Fukui corporates overseas expansion
B1	HR development at corporates
B2	HR development at corporates
C	Women empowerment
D	Management of commercial district
E	Traditional crafts industry
F	Local production/consumption of agricultural products
G	Problems at Tourism Industry
H	Problems at Public Transport Industry
I	Countermeasure for youth outflow from the prefecture
J	Town revitalization

Slide 5

YR 2016 PBL Basic A（Freshman：4th quarter）

WEEK1
- Introduction to Course/Syllabus
- Each student shuld tell/share a story he/she brought to class – PERFORM it if possible
- TIMED READING Read about myths, fables & fairytales and legends
- Watch Videos on traditional story types
- Creatte Teams for the event
- Discuss the EVENT, and which audience your group would like to interact with

WEEK2
- BEGIN READING ON HOW TO TELL & SHARE STORIES WITH CHILDREN
- DISCUSS HOW TO BEST WORK WITH AN AUDIENCE
- Watch storytellers in action/VIDEO
- Practice 'true' stories
- Check out some children's stories at a LOCAL LIBRARY

WEEK3
- SPEAKING EXERCISES… TELL A STORY ABOUT YOUR HOLIDAY OR TIME OFF
- BY THIS DATE ALL GROUPS MUST DECIDE ON THE STORY THEY WILL TELL
- FIRST GROUP REPORT DUE

WEEK4
- ALL MATERIALS FOR PR READY BY TODAY
- SPEAKING EXERCISES
- WATCH STORIES/ Animated or others
- GROUP WORK ON MATERIALS…PREPARE…

WEEK5
- WORK IN GROUPS ON OVERALL ORGANIZATION & GROUP ROLES

WEEK6
- Speaking exercises
- Group work – materials/ realia preparation

WEEK7
- PRACTICE: Work in groups – practice telling your story to another group
- Exercises for Confidence Building
- Go through the whole sequence for the final project/event

WEEK8
- Class Wrap up
- Individual Story Sharing
- Submit Final Group Report

Slide 6

2017 PBL Ⅰ・Ⅱ（Sophomore：Year round course）

■Global approach：Choose one of the following two projects:

Sake Project	地域の産品等の歴史・生産や販売のプロセス・生産者や販売者の視線や考え方等を取材し、英文の冊子を作成します。今年度は福井の地酒をテーマにします。
Int'l Festival Project	10月に開催される国際交流フェスティバルへの参加を軸に、企画の立案・調整、関係者との折衝等準備、全面の裏方、会期後の振り返り等を行います。

■Community approach：Common lectures during Apr – June. Later, the students will be divided into groups of 3 - 4, and discuss ideas on how to proceed hearings & visiting of the counterparts. Based on their experiences from 2nd yr, students will collaborate with counterparts & present the result from collaborations.

Corporates oversea expansion	特定の企業の海外進出プロセスや企業を取り巻く環境を調査します。3年次には新たな海外進出プランの提言に取り組みます。
Product development at corporates	特定の企業の新規商品開発やマーケティングのやり方を調査します。3年次には協働して新規商品開発に取り組みます。
Strategies for traditional artifacts industry	伝統工芸品の新たな企画や販売・営業手法を調査します。3年次には協働して企画等の展開に取り組みます。
Tourism Industry	温泉旅館の顧客etcサービスの現状調査や関係者へのヒアリング、観光資源調査を行います。3年次には新規観光資源のサービスの提案に取り組みます。
Improve the internship programs	インターンシップ等について、自ら体験するとともに各企業の取組みや参加学生の評価を調査・聞き取りをします。3年次に企業への改善案の提示、再評価に取り組みます。
Improve the local transportation industry	交通事業者の抱える具体的な課題を調査し、3年次に関係する地域関係を踏まえて事業者に対して提言します。
Corporates' social responsibility projects	特定の企業の社会貢献事業（環境支援・慈善）の具体的な企画に参加し、つつ立案プロセスを学び、3年次に新たな企画の提案・実施に取り組みます。
Development of local brands	自治体と地元業者との連携による地域ブランド商品づくりの過程に参加しつつ自治体の施策を学習し、3年次に新たな地域ブランド商品の提案・試作に取り組みます。
Making TV program to solve local problems	メディアにおける取材や番組制作の方法、課題解決の視点を学び、3年次には自主番組を制作することが想定されています。他のチームとのコラボも可能です。
Revitalization of mountain area and its evaluation	自治体の同事業に学生もメンバーとして参加して、事業の実施状況、実施地区の実情把握、自治体の施策を学習し、3年次に具体的な活性化案の提案・試行に取り組みます。

Meeting Session with Faculty Members（LMS）

LMS の活用について学内教員との意見交換会

Meeting Session with faculty members（LMS）

Date	Wednesday, May 24, 2017
Time	14：30 – 16：30
Place	Conference Room, 2nd floor, Administration Building（Bunkyo Campus）
	Conference Room, 3nd floor, Administration Building（Matsuoka Campus）

Members Present
Dr. Kathy M. Takayama（Northeastern University）
Ryuji Nakata, Trustee, Vice President for Education and Student Affairs
Toshihiro Yasuda, Vice President for Institutional Research
Hideo Teraoka, Vice President for International Affairs
Hiroshi Abe, Vice Dean, School of Medical Sciences
Hirohiko Kimura, Professor, School of Medical Sciences
Tetsuji Kurokawa, Associate Professor, School of Medical Sciences
Masato Tanaka, Visiting Professor, School of Medical Sciences
Nobu Kuzuu, Professor, Graduate School of Engineering
Norifumi Yamada, Professor, Graduate School of Engineering
Yutaka Tanaka, Associate Professor, Graduate School of Engineering
Masanobu Yokoi, Professor, School of Global and Community Studies
Ryuhei Hosoya, Professor, School of Global and Community Studies

Interpreter	Azusa Matsuo, Staff of the Educational Affairs

☐ Trying active learning in medical lecture that links Learning Management System（LMS）and Content Management System（CMS）together

☐ Tetsuji Kurokawa, Masato Tanaka（Department of Medicine, Faculty of Medical）

[Objective]

To teach students how to use their knowledge which they acquire from lectures or textbooks.

[Method]

Target:　　　Medical student at 3rd grade（100 students）
Content:　　Pathology of Obstetrics and Gynecology
Time:　　　90 min X 3 times in a day
System to use:　Medical system（Ideata：Originated from Fukui University）
Learning form:　group form（5 students／1 group）
Lecture style:　Students make a diagnosis by themselves using "Ideata".

[Result]

In results of a questionnaire from the student, 80% of the students answered "Our

lecture was useful".

We performed the same examination before and after lecture to evaluate the understanding for our lecture. The accuracy rate was higher after lecture than before lecture.

[Conclusion]

CMS is a good system for students to learn how to use knowledge. LMS is an effective system to judge students'understanding level at real time. Our results suggested the possibility that the students learned how to use medical knowledge by using CMS and LMS.

システム概要　　　　　　　　　　　　　　授業風景
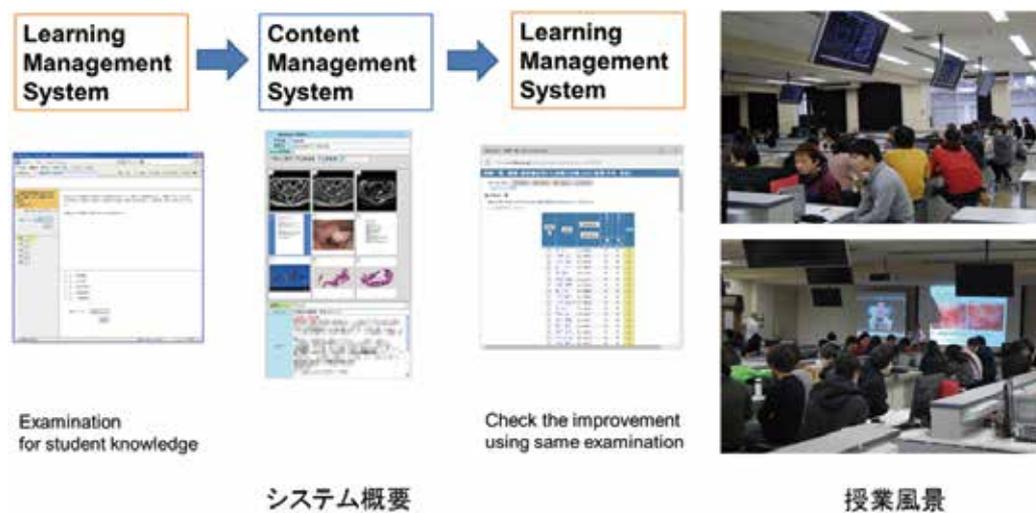
Speakers

T：Dr. Kathy M. Takayama

F：Members of the University of Fukui

T　I want to make sure that I understand the your final slide, the point you want to improve when you say it's difficult to divide the time between thinking, presentation and lecture. Can you explain further is it that you're trying to decide how to divide the time or you're trying to … are you saying you don't have enough time?

F　I think 10% is thinking time, 30% presentation time 60time lecture time, But so thinking time is very short, so in the future, next year, divided, thinking time is much slow 30%, presentation time is 20%, lecture time is 30%. I think this is the divided time.

T　Thank you. So I'm excited about the good point you said which you didn't expect

that students are teaching and discussing each other. And it seems to me that this is one informal way for you to get feedback or it's an informal I guess kind of data, that's telling you that the time that students are spending in interacting with each other is very valuable, because they are thinking deeply they are problem solving on their own. And I'm wondering whether if you wanted to get actual evidence or data to say how do I want to divide my time based on the data of student learning. Then you don't have to have a same formula for every single lecture, but maybe there are ways and which for some weeks, there's more collaborative interaction and thinking time, and then maybe other weeks there has to be bit more time for lecture, depending on the what the nature of the lesson is.

I sent over some papers in from other universities that have tried to think about how to best use, use the time of a class in relation to connecting to student learning, and student learning outcome. And maybe there's a way which you can think about how you can be convinced in spending your time based on the student's understanding. I'm really sort of validating and congratulating you on the fact that students are discussing and teaching each other, because I think that's really powerful. And a lot of the research in the US has shown that at least for some of the physics courses which have changed across America in many of the classes where students are spending more time collaborating and discussion, so there is less lecture time, but they're learning more. And so the professor can spend less time lecturing. So perhaps some of these papers might give you some ideas, in how do you structure the time, so you don't have to worry about delivering contents so much, but you can still be convinced that students are learning. It's just a suggestion.

F　Thank you.

☐ Happy（?）life with LMS
☐ Norifumi Yamada（Department of Information Science, Faculty of Engineering）

Until only a few years ago, we had to login to separate administration systems in everyday activities such as sending messages to the students, viewing student information, distributing class materials, editing syllabus, etc. Thanks to the

construction of a portal site, this inconvenience has now disappeared. The portal site is the entrance not only to the ever existing systems but also to the newly introduced LMS (WebClass), which assigns a "room on the web" to each course. In chalk-and-blackboard courses, I upload the "Feedback Sheet" in PDF format to WebClass. The

Analyzing the test results.

Feedback to the students is made in the classroom.

Communication with the students in the class is an important part of the education that must not vanish.

The instructor can put the grade information on the web.

Each student can view his/her grade on the web.

Grading management on LMS is much harder than I expected.

download records show that many students use the materials for review, especially before the midterm/final exams. In some courses, I also upload materials such as the "commentary on common mistakes" and the account of grading procedures. In "Basic Information Processing," I give some assignments/tests on WebClass. The scoring is automatic for single/multiple choice questions and also for such questions that need only simple pattern matching to detect the right answer. Although manual scoring is still necessary for descriptive questions, the use of WebClass helps to reduce the overall workload of scoring. I upload the scores so that each student can check his/her score together with the maximum, the minimum, and the average scores. This "score visualization" is welcomed by the students and contributes, for example, to increase the submission rate of assignments. A warning that I can think of is that, since the whole process of grading is often complicated, to reflect all the grading related information to WebClass can be cumbersome. I should also add that not all assignments/tests are given on the web in my courses. The Feedback Sheet is distributed in the classroom as the assignment in the form of a paper, and the drafts submitted in the collection box are returned with written comments to the students before the next class begins. I would pursue a good combination of such a traditional approach and the web based approach to increase students' learning outside the classroom.

Speakers

T：Dr. Kathy M. Takayama

F：Members of the University of Fukui

F   In Yamada sensei's web-class, do you make chance to discuss with students?

F　I have opened a kind of Kaigi-shitsu on WebClass, but no active participation so far. In the Kaigi-shitsu, I prepare supplemental materials for such students who make typical mistakes, and I expect their response. The records show that the materials have been read by some students, but there is no explicit reaction from them so far. I must encourage them much more.

T　First thing I want to congratulate you because I think that some of the insights at you have come to yourself, that really are showing how you are thinking holistically about the whole course, and so I agree with you that it's so important to still think about the ways in which you still provide the feedback and the value of communication, and other the blended pouches as you described.
I'm curious to know, do you have sense of before LMS versus after LMS?
Have you noticed a difference?　In the students as a whole, are there certain areas of the course that they seem to be doing better in or are there areas that are more problematic?

F　Students can now easily access their score on WebClass. I'm feeling is that their submission rate of assignments is better now. They can check their score on the web, and if they find that it is not good, they seem to think "I'll do better next time," which would have made the submission rate better（compared to the days）when LMS was not available.

T　So you're saying once you implemented the LMS, the students are not submitting… as much?

F　No, before LMS was introduced some students did not submit their assignments. Maybe the submission rate was about 90% or something.　But now, almost 100%.

T　Oh I see, so it got better. I see afterwards.

F　Excuse me Mr. Yamada, do the students get to see the other's grade as well, not just his or hers own grade?

F　They can see only his or her grade.

F　Just his or hers? But does the student get to know where her grade is in relation to the average?

F The highest, the lowest, and the average scores are also displayed on the screen, so they can roughly understand their position in the class.

T I was wondering whether I can appreciate how you value feedback and you think it's important for them to have feedback, but it's a challenge because it takes time, and so at the end you give them the very comprehensive feedback. But we know that you know, formative feedback is really important to give feedback regularly throughout year as opposed the end, which is difficult because it takes time. I'm wondering whether, I noticed other professors in other institutions have become quite creative in thinking how can I do this in small regular intervals.

I don't know whether your particular class lends inaudible because you said it is more computational and quantitative. But in some instances the professor, let's say there are several three or four times during the semester that they could give feedback. They will have, so if there's a student assignment they've uploaded, then the professor very quickly records a podcast, and then submits it to the students.

So now you are giving them verbal feedback while you're looking at their assignment. And so it doesn't take time for you to do it, but at least you are doing it three times, and then at the end instead of just at the end, so I'm just wondering whether you think that might be helpful if you value feedback.

F Yeah, that might be helpful I think. At the same time, I would say that the correction to their writing is very important. Some of the students cannot write correctly the alphabet. So even to their writing of cursive alphabet I make correction.

University is the final stage of education. If I say nothing, no one would give them such a "low level" warning. So, although teaching cursive alphabet letters is not our role, I make corrections if they do not write correctly.

T Good. Is there an opportunity for peer feedback for them so things like you know, teaching writing or alphabet, again that you know, you're right, it's important, it's always you that's having to do this all the time. But are there certain points of the semester where part of the grade is they give each other feedback.

So maybe you get 5 points or something. You know for giving each other feedback, because if the students are giving someone else feedback, then they are learning more, because they're paying very close attention to give them feedback. And so that way, it

saves you a little bit of time. But it's also helping them learn more deeply.

T   I understood that. I think that's the challenge that I was trying to make suggestions for, because I think the number one challenge is time. And being able to give thoughtful feedback if there is no time. But the idea of peer feedback was to save your time, because now it's not your time, but the way in which you could think about it is, if you …for not every assignment, let's say for one assignment, you created a rubric, to help them think about how to give feedback. And post the rubric on the LMS, and for assignment No.3, the students you say ok you know, so student A gives feedback to student B, that's the pair. They have to use the rubric to give each other feedback, and you don't do that for every assignment because you know they, you're not quite sure how good they are, but I think the process of giving peer feedback with a rubric that you've given them also makes them learn deeply because they're trying when they give someone else feedback then they are also thinking more deeply, so it's a way of saving yourself time but at least you are helping them be more critical.

T   In the LMS.

F   So students get together somewhere?

T   Or no, they do it in the LMS. So there is an assignment, and the student uploads their assignment and they exchange in the LMS, and then when so assignment No.3, let's say you create the rubric, and you put it together with the assignment, and then after they submit the assignment, and then they exchange and give each other.

F   Exchange on the web?

T   In the LMS. So you have to just match.

F   Sorry to disturb you.

T   You're not disturbing.

F   After the peer feedback, there comes something final answer for the question of the assignment, ok? And so, is it better or not to make a something like a deadline or closing date for the final results of the questions of the exercise. Because if you don't have a closing date, this kind of conversation between students makes longer and

longer, it will last forever,

T   So yes, you are absolutely right, so have the submission deadline, and then the peer feedback deadline, and then I think I agree with you the learning curve is high. If you have not done feedback but, if you start with a small assignment, and you work out how to do this, the gain for the student is much bigger than if they just received your feedback. Because now they have to think about the feedback, so they are also learning, when they are giving feedback to somebody else. And again it depends on the subject matter, and the type of assignment, because not all assignments lend themselves to peer feedback, but let's say if you had one assignment out of every five, where the point value is not so high, but they still have to do it, and they're giving each other feedback, I think that process of student engagement is much deeper.

So you could maybe try it once. And then the next semester maybe you make a bigger assignment. Because as you get better as creating your rubrics, then you have a better sense of how to do it so you are getting them to learn. And I know that from my own students that they said they learned the most when they're giving somebody else feedback.

F   Excuse me, just to understand this concept of peer feedback a little better, it seems like we are talking about a particular student making an input and receiving feedback from the rest of the class, if I understand correctly. Can this be sort of you know, could there be variation on this?

T   I'm sorry I should clarify, so in this case there are different variations of it, so that's one format where a particularly student might be presenting something or uploading their work, and they're getting feedback from the entire class. In this instance, I was thinking about just 1 on 1. So there are 30 students in the class, then you have 15 pairs of students where they are giving each other feedback.

F   I suppose this can be used for group study as well, for example, if you give them an assignment you don't give it to the whole class. But you assign a team to work on a report, so that team can use this platform or rubric to exchange to just amongst themselves to complete that project.

T   Absolutely, yeah, I mean that's another great example, but and they're different ways in which different subjects have used peer feedback but, it's just it invokes

these critical thinking skills which are much deeper than if a student just receives the feedback, because they think of it as a grade you know from the professor I've received the feedback and that can be helpful but if they're also providing feedback, it invokes a much deeper process of critical engagement.

F   Peer checking system is very, I think just have try maybe few month, I feel that this method is very useful to notice what is important thing, sometimes to write a report important thing I explain and give a judgement, to order to grade, for example how to consider the readers or styles but peer instruction is very short and easy way to ignore what is important I think.

T   Oh if the students are only doing the feedback? You are right, because they're not experts, but I think that it's always important for the professor to sort of finally summarize, but it's I think the power of peer feedback is not only about the feedback, but it's more the student that is giving the feedback is really learning, because if they are trying to give feedback to someone else, then they have to really critically think about their problem.

F   So critical thinking is very important but very good tool to force to think critically.

T   Right, right. Which is why I was thinking if for the assignment, you have to select it carefully, because you don't want them to give the wrong feedback. So the way you in which you select an assignment for peer feedback should be something that's small stakes, not a really important one, but maybe something that is intermediate, and the rubric has to be a really good rubric. But what you could do is, and then there's an opportunity I think for that group discussion happening in the LMS as well, because after the students give each other peer feedback, and because the critical thing here is time, right? because faculty don't have time, and professors don't have time, so the students are giving each other feedback, but then you could have a discussion section right in the LMS, saying, "I just want it, I want you to, all you, to post your impressions, and some of the points that were most confusing to you, and what you think was most important from this lesson." and you could quickly scan the discussion to say if many students are saying the same thing about what was most confusing, then that's helpful to you as a professor to say "Ok, in this assignment, most people were confused about this." But then if there is some contradictions, where you realize that they are giving the wrong feedback, then you could also see that as well.

But it saves you time, because you are not having to go through every single one,

but you are getting that the temperature of the class as well as a group.

□ Web Class and Operation in Physics A
　（Friday 2nd hour in the fall semester,
　First-year student in Department of Materials Sci. Biotechnologies）
□ Yutaka Tanaka（Department of Materials Science and Biotechnologies）.

　The operational status of Web Class was reported for Physics A, which actually means the classical mechanics. Web Class was utilized in the semester from October 2016 to February 2017, and never used before. Summary of weekly processes associated with Web Class in Physics A is chronologically shown in the figure below.

Pre-class work : Wednesday Morning. Weekly topic is opened on SCORM, the work is carried out with writing in the notebook.（Mainly, the diagram constructing） Input about the most difficult entities in the Weekly topic on SCORM. See the topic of PI（peer instruction）this week.

Day of Class : Cross-Check（Notebooks in which pre-class work was carried out are interchanged within a group of three people to be given a score of A/B/C/.） Input A/B/C given at Cross-Check from peer on SCORM. Regarding the topic of PI, input the choice to vote before and after peer instruction.

Post-class work : Friday afternoon to Wednesday next week. Exercises（usual Physics calculations）are carried out over SCORM. Input about what could barely be understood on SCORM, word, phrase, symbol, equations, etc.

　Pre-class work is mostly carried out with drawing or writing in the notebook; x-y-plot, diagram, description etc, which is checked interpersonally within a group of three students. As for Post-class work, the answer is usually given by the type of formulae and calculation which is input and scored by SCORM.

　Cycles of pre-/post-class work will give a bank of 15 week's data for exercises of Physics A in the end of semester. Although it is strongly suggested to look back this databank before the term-end examination, there seems to be a general tendency for students to collect
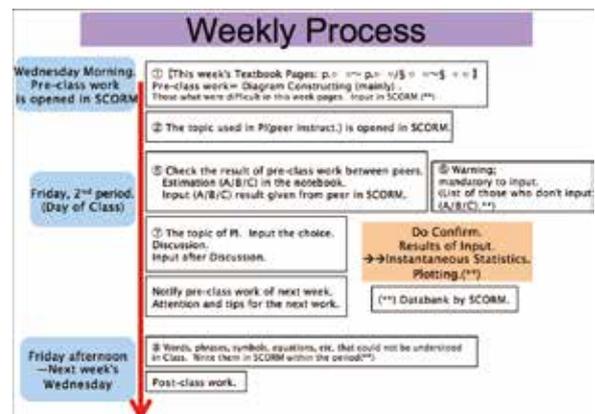
examination papers of previous years. It is more encouraged to learn with the databank each student has in SCORM, and we need more development to increase self-learning in Physics A.

T：Dr. Kathy M. Takayama

F：Members of the University of Fukui

T They know that you'll be using the questions but they still don't use them to study.

F They don't use.

T So how do you think they are studying? What are they using to study?

F Ok, studying is only rely on depend on the papers of previous years which comes from the preceding year students, this is the main tool for students, but I would like to make them to use, the preceding papers those are convenient or useful I agree, but just to use, I'd like to say, this weekly exercise is another form of preceding examination paper, so that's always I will make a high reputation about the weekly process the they tend to need that kind of information.

T Do you know of any students are using? Are there some students that use them? The collections?

F I'm not sure. Using the collections of exercises? No, I can't distinguish which student is using or which student is using, I can't.

T So you can't do A-B testing.

I think you can. So the person that has done a lot of this is Eric Mazur, and I think he has in his publication he has some examples of how he breaks down physics questions as just of a biker at University of North Carolina, but the key

is really sort of breaking down the question, so that you're engaging the students in the peer instruction process of building it backup, right? Building their understanding up by doing the peer instruction. And so the way in which, I can give you an example of when I was working with the economics department a number of years ago, where they were using they decided to move to peer instruction to get the students to understand better because, basically in this particular course which was micro economics they really needed to understand calculus and so, what we did was this was when I was at Brown, Brown has a 14-week semester. And We looked at the 14 weeks of the course, 14weeks, and the tradition was always in 14 weeks the course had, it met Monday, Wednesday, Friday were, the lectures, and for 1 and a half hours each, and we took out what we did was we reduced it so that we only had Monday and Friday, and the Wednesday was peer instruction, instead of lecture. And the students worked in groups of probably 3 to 5, and we had to strategically think about what was the subject that they would do peer instruction, what was the topic. To identify the topic, the professor looked at the course and said, "These are the most difficult concepts and we made that concept be the lecture peer instruction day."

F　Is it related with the economics I think? Because you make an explanation about the economics class,

T　Yes that's the one.

F　But the structure is also similar to the natural science, like mathematics or physics?

T　Yeah, I think so. And you know that, also that physics professors as well also recognized, and we worked with the physics professors to change their courses into peer instructions. And the first step was to think about where what are the most difficult topics for students. Because those were the ones that benefited from the peer instructions, and then we worked to design problems that initially when they were doing peer instructions the strategy was there would be two kinds of problems. The first problem was a simple problem. And they work on it by themselves even though they were sitting in a group. And then after they work on the problem, then they show each other and explain to each other what they did. So that was step number one. And then after they do that, because we start with a not very difficult problem but a straightforward one, their confidence is a little better, and they can also explain to each other, so again they're critically thinking because they're explaining. The next stage was the tough problem. That they're doing collaboratively in peers and they have to

sort of first really think about explaining to each other, they're working it with each other and the professor is not teaching, but the professor is moving around they're sitting in groups, so moving around in the class room.

F   Moving around? Not teaching?

T   No, they are listening. The professors are listening. And when the students are discussing if they're getting stuck, then the professor helps them not by telling them the answer but by asking another question. So it's a facilitation process.

F   So this idea that we are discussing now peer instruction that sounds like it can be applied to any discipline?

T   It can.

F   And it's an extension of peer feedback, isn't it?

T   But it's collaboratively.

F   Students teaching each other.

T   Right, so temporally, in terms of it's different from peer feedback, because temporally they're working together at the same time on the problem.

F   Maybe I feel that to peer instruction is doing something very interesting for students. For example I began to have a very large class and maybe the total is 550 students, divided to 4 classes, and one of the class is about 150, so sometimes we forced to discuss, and every classes only 15 or 10 minutes to discuss, but few times, we forced to, 1 class, 50 minutes, discussion. And then the other days, present the result, but we hold it randomly and assign the students. So only maybe 6 or 7 groups can be present, but almost all groups are take a time, at least an hour or more to prepare their presentation.

And sometimes are present a report, but most groups prepare well, so maybe that is very interesting I think. So and I use also LMS and upload the reports and feedback, but very take a time is 550 is take time almost all days in a week, so I try to in a small place peer review, that is very useful for notice what is important. I think rubric style is very good, but maybe mathematics or physics answer in writing is not so good for

peer scoring, I think. So depending on the material. So I ignore that the tool is very important, and last 15 minutes I order to students to summarize the lectures or what is due, for as imaginary reader for their classmates who is absent in that time. So for 300 words if you give 5 paper, they don't write but genko youshi with square, for 3 characters they almost write at least 80%. So the words and sentences are not so bad they are meaningful sentences, so I think to give a tool or environment is very important I think. So in today's discussions I imagine some what to do next time. So from next week I try.

F   So Kuzuu-sennsei, How about thinking about the writing skill? And also I'm afraid to say but thinking skill? The students.

F   Depending on the students.

F   Because in a white paper, they can't write down. But if they have a genko-youshi which has a square, they can write anything or something.
Probably there is a separation between the writing skill and the thinking in the real time.

F   But I think I use a word imaginary reader "souteidokusya", and imagine for example for 10years old children to write something for example the mechanism for the reflection of light, for example as assignment, that is very good tool to thinking and presentation, sometimes, I have a class for and for 1 semeter, but now different class I have a class for General Education, that tool is very useful for students to learning yourself or thinking or presentation express their thinking, so maybe more than 10 years I try to search a way.

F   If I may just coming back to our topic of LMS, there was an issue that I wish to try which relates to copyright. Particularly in relation to what material we can upload on the system, what material we can not. And I'm not an expert in this field. But it just occurred to me when I attended the training session for the LMS, but actually this could be in fact evaluated to make full use of the system that said my point is rather it seems to me that perhaps there is room, scope for raising more awareness about this issue, there is, it seems to me there's not a uniform understanding across faculty, and so it's really an issue for management to for example introduce clear guidelines and make sure that everyone is aware of it. So perhaps you can share with us if this has indeed been part of your experience nowadays at Brown, or other universities in states.

T　Thank you for bringing that up. That's a really good point. And I'm glad you brought it up. It has been something that I think we, in US now, universities have a pretty good handle on. Because you know we've been engaging from the early stage of what are the copyright laws, so and I can't speak for what the laws here are in Japan, but I can tell you that the copyright laws in the US, and this is also related to some of the universal laws are such that if there is material been uploaded into a system that is behind the login, so it's not open for the public, but it's your institutional login system.

And it is required for instruction then the usual copyright restrictions in the public domain don't apply, because it's behind a firewall. So you can upload pretty sizable chaps, so you could you could definitely upload a full chapter, and then in America we have what are called the Gutenberg laws, I think that's international actually.

Basically anything that was published more than, what is the magic year, I forget what the exact year was, but if you look up Gutenberg, you can tell there's a year and anything published prior to that particular year is all public domain, because the copyright has expired. That was important for us because when I was at Brown we were designing entire MOOCs, which required uploading entire books so we choose those that were no longer copyrighted for that particular course. Or, but you're right I think, part of it is the clear messaging in education of the instructors to let them know what the copyright regulations are. We depended so that the experts in universities about copyright are the librarians. So at both when I was at Brown, and now at Northeastern, whenever I have a question about copyright I go straight to the library, because the librarians know every single rule, and they even have websites, into the library association of exactly what is copyright and what is public domain.

F　So I suppose it's partly a question of communication between the different departments?

T　It is.

F　I think you've seen our library, we have a rather big library, both here and at the medical school.

T　I'm sure they will be able to tell you exactly. You know they're the experts so they can give you the language and you can just put that in the communication to all the instructors on how what is copyright protected. I think it's also helpful for the students

from now to understand these things as well, particularly if they are, so let's say in their assignments you know they are using images I mean they tend to google things right? But they have to understand that images are copyrighted.

F　Thank you, in fact you touched upon another point which if I may just very quickly, so far we've been talking about mostly using LMS, for internal purposes behind the firewall mostly, just within the class, but given these tools that we have, I tend to think they have a potential for being used publically as well, not just within university, but for publicity even. I'm just wondering if that actually has been the case in United States, the tool being used, for example I think of whole lectures for example being recorded, or you mentioned podcast, broadcasting that on the internet is starting a possible extension of the LMS.

T　Yeah, perhaps not specifically the LMS, but you're absolutely right universities in the US see, the broadcasting of their lectures, particularly star professors, or a particular area that a university has expertise in as great publicity material , so many universities now have their university you tube channels, they also have their they have apple channels as well and, they will just freely upload lectures for public consumption, because they see it as publicity. And but also you know for education, I think of to the world.

LMS の活用について学内教員との意見交換会

<table>
<tr><td>日　　時</td><td>平成 29 年 5 月 24 日（水）　14：30 ～ 16：30</td></tr>
<tr><td>場　　所</td><td>本部棟 2 階　第二会議室</td></tr>
<tr><td>出　　席</td><td>ノースイースタン大学</td></tr>
</table>

　　　　　　　　　教育学習・研究推進センター長　　キャシー M. タカヤマ博士

　　福井大学

　　　　　　　　　理事（教育・学生担当）副学長　　中田　隆二

　　　　　　　　　副学長（ＩＲ担当）　　　　　　　安田　年博

　　　　　　　　　副学長（国際担当）　　　　　　　寺岡　英男

　　　　　　　　　医学部・副学部長　　　　　　　　安倍　　博

　　　　　　　　　医学部・教授　　　　　　　　　　木村　浩彦

　　　　　　　　　医学部・准教授　　　　　　　　　黒川　哲司

　　　　　　　　　医学部・客員准教授　　　　　　　田中　雅人

　　　　　　　　　大学院工学研究科・教授　　　　　葛生　　伸

　　　　　　　　　大学院工学研究科・教授　　　　　山田　徳史

　　　　　　　　　大学院工学研究科・准教授　　　　田中　　穣

　　　　　　　　　国際地域学部・教授　　　　　　　横井　正信

　　　　　　　　　国際地域学部・教授　　　　　　　細谷　龍平

T：キャシー M. タカヤマ博士

F：福井大学からの出席者

■ 各学部におけるＬＭＳの活用事例紹介

□ LMS（Learning Management System）と CMS（Content Management System）を連携した医学教育への Active Learning の試み

□ 黒川　哲司 准教授（医学部　産科婦人科学）

【目的】多くの学生は大量の医学知識を学習するが、その知識の"使い方"を学ぶ機会は限られている。そこで学生が学んだ知識の使い方を学習するには、医師が行っている診断や決断を追体験することが効果的だと考え、実際の臨床例を教育資料化する CMS と学生に学習目的を示し、効果を判定するための LMS を組み合わせた Active Learning を試みたので報告する。

【方法】3 年次生 100 名に対して、産婦人科病理学授業で、270 分連続の 1 グループ 5 名程度のグループ学習形式をとった。LMS としては本学で導入した WebClass を用い、CSM としては本学で開発した教育システムを用い、教育システムから WebClass の該当画面を URL 連携で呼び出す方法を用いた。

【結果】学生アンケートでは、84％がこの Active Learning は有効であったと答え、授業の前後で行った小テストの結果より、授業で得るべき要点について理解が深まった。

【考察】CMS による追体験は知識の使い方を学ぶために有効であり、LMS は学習目的の提示と学生の理解度をリアルタイムで知るために有効であった。また、予期せぬ効果として学生相互の"教えあう姿"が見られた。今後は、時間配分を適正化してさらに効果的な授業を目指す。

システム概要　　　　　　　　　　　　　　　授業風景
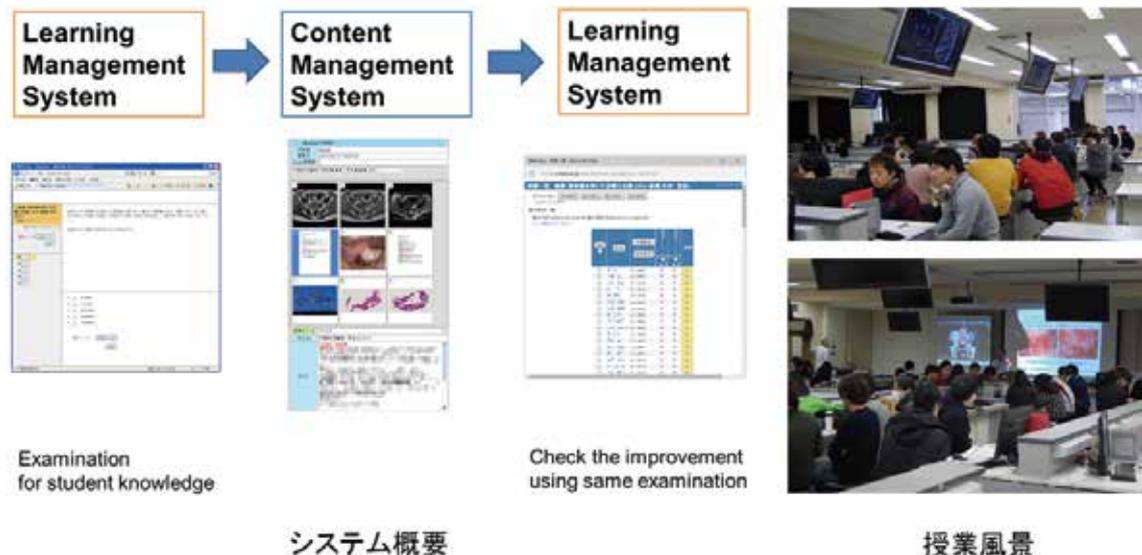
1）時間配分に関する質疑

「考える時間、プレゼン時間と講義時間を分けるのが難しい」との説明に対して、タカヤマ先生から質問があった。考える時間：プレゼンテーション：講義＝ 1：3：6。考える時間が非常に短いので、来年は、考える時間 30%、プレゼン 20%、講義 30% 程度にしたいと解答。

2）学習効果と学習内容による時間配分

互いに教え合い、意見交換するなどの学生間交流によって、深く考え、自分自身で課題解決しているとともに、学生からのフィードバックを得るための手段にもなっていると思う。時間配分は授業内容によって時間配分を変えるべきではないか？時間配分関して事前送付論文が参考になると思う。学生相互の教え合いは非常に強力な学習法だと思うので、実証実験として好ましい。米国では物理の授業で協働学習による大きな学習効果が報告されている。教員は講義時間を低減できる。学生は確実に学んでいるはずなので、講義での内容はあまり気にしなくてもよいだろう。

□ Happy（?）life with LMS

□ 山田　徳史　教授（大学院工学研究科　情報・メディア工学専攻）

　　LMS の活用事例を紹介した。シラバスの閲覧と編集、学生へのメッセージの送信、学生情報の確認、授業資料の web 公開など、従来別々のシステムを使って行っていたことがポータルサイトから一元的に行えるようになったことの利便性は大きい。担当する授業においては、授業スタイルに応じて、WebClass を活用している。「黒板とチョーク」

Analyzing the test results.

Feedback to the students is made in the classroom.

Communication with the students in the class is an important part of the education that must not vanish.

The instructor can put the grade information on the web.

Each student can view his/her grade on the web.

Grading management on LMS is much harder than I expected.

スタイルの授業では、授業後に課す "FeedBack Sheet" を WebClass にも置いており、多くの学生によって（特に試験前の）復習用に活用されている。授業によってはよく間違える箇所の解説、採点方針の説明なども資料として WebClass 上に置いている。PC 教室で行っている情報処理にかかわる授業では、課題や小テストを WebClass 上で実施している。選択問題は自動的に採点される。記述式問題の採点はエクセル上で、手動で行うことになるが、単純な内容を答えさせる問題であれば、採点の手間はさほどかからない。採点結果は WebClass にアップロードし、学生は自分の得点および最高点・最低点・平均点を知ることができる。こうした成績の可視化は、課題提出率の向上につながっている。ただ、成績管理の全てを WebClass 上で行うことはかなり手間のかかることである。なお、手書きで解答させるスタイルの課題の添削・返却については古典的な方法で行っている。そうした方法の長所と LMS の長所を組み合わせることによって、授業外学修の質を高めることができると考えている。

質疑応答概要

1）Web Class 上での学生との意見交換の機会を設けているか？

F　Web Class の「会議室」を設定して学生の参加を促しているが、学生の参加はない。もっと周知が必要。

T　全体のコースのことを考えていることは好ましい。学生に対する評価・コメント（feedback）やコミュニケーション方法について他の方法を併用することについても同感するとのコメント。

2）LMS 使用前後で気づいたことは？

F　学生は評価が悪いとすぐにチェックするようになり、提出率が LMS で 90% 程度から 100% に。

T　フィードバックの価値とその実施の重要性を意識し、時間をとることが課題だが、学生に対して非常に包括的なフィードバックができていると思う。計算機関係や定量的な授業では実施が難しいかもしれないが、学期中３～４回程度の評価は可能だろう。LMSへの提出物に対してすぐにpodcastで録音して返すこともできる。

3）文章・字句の添削

F　書いたものを添削することも大学教育は最後の機会として重要。字句を正確に書けない者の添削をすることもある。

4）学生の相互評価とルーブリックの活用

T　学生が相互評価のように他の学生へ対応すると、本人はより多く学べ、教員の指導時間もほんの少しは節減できる。そのためのルーブリックづくりが有効。例えば、第３回目の宿題に対して、LMS上にルーブリックを示すと、それを基にA君がB君の評価をするという形でペアができる。ルーブリックはすべての宿題に対して良いとは言えないが、学生間相互評価はより深く考えるようになり、教員の時間の節減とより丁寧（critical）な学生指導につながる。相互評価はLMS上で実施。

5) 相互評価の効果

T　提出・相互評価の締め切り設定により学習効果が向上。多少の教員評価・コメントに加え、学生は誰かの評価をするためより深く学ぶ。５回に１回実施するだけでも、学生の相互関与が深まる。一度実施すると、次学期に宿題をたくさん出すようになり、ルーブリックから様々なことを得るので、学生の学びに対する感覚の向上につながる。ペアの評価だけではなく、特定の学生の発表やWEB提出物に対して、他の全員から評価を得ることもできる。30人のクラスだとしたら、15組の学生の相互評価もできる。グループごとに

レポートを課すといったこともできる。課題によって相互関与のやり方は異なる。でも、評価を受けるだけよりもより深く思考する必要があるので、さらに深く精緻（critical）な関与となる。

F　相互チェックを数ヶ月試したが、私が重要と考え説明したことを書いている。読者がどのように考えるとか、形式はどうとかを相互評価は短時間で効率的に伝える方法となっている。

T　教員の説明を学生が再構成することは常に重要。学生間評価は、本当に課題に対して深く真剣に精緻に考えることになるため、本当の意味で学ぶということになると思う。誤った評価をしないように

課題は注意深く作るべき。相互評価のために宿題は、本当に重要なものよりも、何か学生の範囲で判断できる中間的なものとし、ルーブリックは、本当によいものにすべき。学生同士で、相互評価することで、よく考えるから、学生同士が LMS 上での討論するようになるのではないか？教員は充分な時間がないが、学生は互いに評価している。そこで、教員は LMS 上に「この宿題についての印象、わかりにくかったり戸惑ったりした点、この授業でもっとも重要であった点などを書いてください」と書いた Web 会議室を開設する。これを見ると、学生が何に対して、わからず困っているか把握できる。不適切な評価・コメントをしたときの矛盾点、不適切点を知ることができ、グループ間の温度差も知ることができる。

□ 物質生命化学科・一年生後期・金曜 2 限・物理 A（受講生 86 名）における Web Class. 運用状況
□ 田中　穣　准教授（大学院工学研究科　材料開発工学専攻）

物理 A（内容は初等力学）で Web Class を運用している状況を説明した。2016.10 月〜 2017.2 月の学期で初めて運用し、これ以前は行っていない。一週間の内容を時系列に次のようにならべた；（プレクラス：課題をノートへ記載する、課題の範囲で最も難しいと感じたことを WebClass へ入力する、開示された PI を見る）、（授業中：3
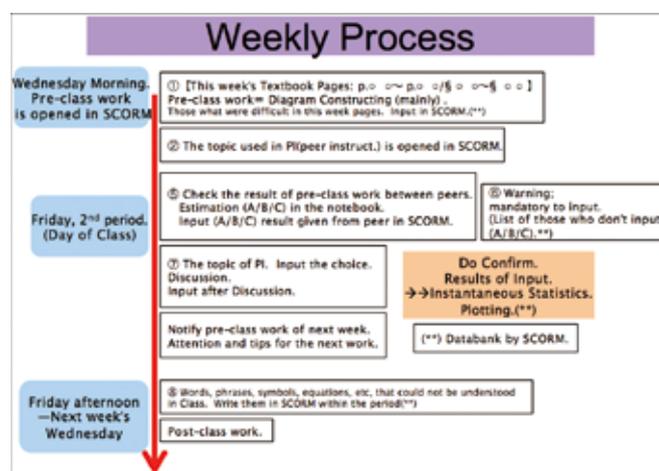
人で班をつくり持ち寄った課題を互いに評価しあいノートへスコア（A/B/C）を記入する。各学生は班の中でもらった自分の（A/B/C）を各自の WebClass へ入力する。PI. の時間には出題に対する自分の投票を入力する。）（ポストクラス：課題の答案を WebClass へ提出。自由記入欄へ入力する。）

プレクラスの課題は水曜の昼ごろに閲覧できるようになり、記述式の回答である（作図、グラフ作成など、一部例外もある）。回答について、作成したノートを授業中に持ち寄り各班のなかで peer からもらったスコア（A/B/C）を入力する。ポストクラスの課題は金曜の昼過ぎに閲覧出来るようになり、翌週の木曜日に閉じられる。計算問題あるいは数式で回答する問題でWebClass（SCORM）が採点する。

これらの課題を毎週くり返すことで学期末には 15 週分の課題がデータバンクにたまる。期末試験の際にこのデータバンクを使って試験勉強するように促すのだが、学生らは過去問の入手に力を入れているような様子がみられる。WebClass のデータ活用が進むような仕組みづくりに努める必要がある。

質疑応答概要

1）SCROM 上で出した問題を（期末／中間試験に）出題しているのに学生は過去問を利用

F　学生は先輩からもらった前年の資料をもとに学ぶ。前年の資料類は、便利で有用なものだと思うが、毎週の演習問題が試験の予習問題なので、毎週の繰り返しが学生の学習にとって有用な指針になるはず。どの学生が過去の資料を活用しているかは把握していない。

2）物理における peer instruction

T　物理で選択問題は難しいが、できる。Eric Mazur は著書の中で、ノースカロライナ大学で、物理 の問題をつくっていくかの例が書かれている。田中先生は、学生の教え合い・学び合い（peer instruction）の中で、学生の理解を構築している。数年前、ブラウン大学で微積分が必要なミクロ経済のコースで学生の理解増進のために教え合い・学び合いを実施し

た。14 週コースで、月曜日、水曜日、金曜日に 1 時間半の講義を行っていたのを、講義は月曜日だけにし、水曜日、金曜日は講義の代わりに 3~5 人のグループでの教え合い・学び合いにしました。教え合い・学び合いが有効になるためのトピックを戦略的に工夫した。「トピックスの内容は、もっとも難しい概念なので、その概念理解自身を教え合い・学び合いの課題とする」と伝えた。学びに対する構造は数学や物理などの自然科学に似ていると思うので、物理にも適用できると思う。私は物理の教員と一緒に行ったが、物理も教え合い・学び合いにした。一番難しいことを扱うことが、教え合い・学び合いの効果がもっとも大きいので、最初の段階は何が学生にとって一番難しいかを考えることである。2 問からなるように構成した。一つは、一人で解ける素直な問題である。第一段階で、この問題を各自解答したあとに、答案を見せ合う。素直な問題なので、自信をもって解説し合うことができ、厳密な思考ができる。次の段階は難しい問題を学生同士一緒に考える。この段階では、本当の意味で深く理解した上で説明しなければならないため、理解のための協働が必要となる。教員は教えずに、机間巡視して学生の討論をよく聴く。学生が討論につまっていれば、答えを教えるのではなく、別の問いを提示するというファシリテーションのプロセスを踏む。このような方法はあらゆる分野に適応できる。一見相互評価の延長のようにも見えるが、教え合いもしている。

その他の教員からの発言・質問など

1）意見（授業実践・書くスキル・考えるスキル）

F　教え合い・学び合いを行うことは、学生にとってとても面白いことだと思う。550 人を約 150 人ず

つ4クラスに分けて担当している。授業中に、10〜15分程度討論の時間を設ける。時には50分の討論を行い、次の回に討論結果をプレゼンさせる。全員に当てられないので、6〜7グループをランダムに抽出している。多くのグループは、少なくとも1時間以上プレゼンの準備をしている。時々レポートを課すが、ほとんどよく準備して興味深い内容のものを提出する。LMS提出したレポートに評価・コメントするが、550人対象なので、1週間つぶれる。そこで、相互評価を行ってみたい。学生に何が大切なのかを認知させるのにもルーブリックは有効だと思う。しかし、数学や物理の答案を相互採点するには、向いていないと思う。授業の最後に授業を欠席した人に対してわかるように、300字分のマス目に要約をかかせている。ほとんどすべての人が300字の80%を埋め、内容がある文章を書いている。このような「道具」を与えることはとても重要だと思う。本日の意見交換を通じて、次に何をしたいかのイメージが湧いた。来週から実践してみたい。

T　学生の書く能力、考える能力はどうか？

F　マス目がないと書かないのに、原稿用紙のようなマス目をつくると、書くようになる。おそらく、学生は書くスキルと、その場で考えるスキルを分けて意識しているようだ。そこで「想定読者」という概念を用いている。例えば、10歳の児童に対してわかるように光の屈折のメカニズムを説明するなどを宿題に出す。そうすると、考えることと、表現することに対する非常に優れたツールになる。共通教育で半期の授業を開講していたが、いまは別の科目で実践している。このツールは、自己学習や思考や表現をするのによいツールで、10年以上実践している。

2) 著作権について

F　LMSの利用で著作権の問題がある。どの教材をアップロードできて、何がいけないのか。LMSを利用するときに、様々な教材を活用することは大切で、重要な問題だと思うが、教員間で共通認識ができていない。この点についてブラウン大学やその他の大学ではどうか？

T　LMSは一般公開ではなく、学内限定のログインシステムであるので、ファイヤーウォールの中にある。そこで、パブリックドメインに対する著作権の適用外となる。著書の全部をあげることもできる（米国では、Gutenberg法に規定。世界的に通用するのでは？）一定の年限を過ぎたものは著作権がなくなりパブリックドメインで公開可能になる。ブラウン大学にいた時には、MOOCSを構築した。そのコース限定なので、必要な書籍をそのままアップロードした。

著作権については、教育の中で学生に知らせる必要がある。著作権についての専門家は図書館なので、これまで、著作権に関する疑問は、図書館に直接聞きに行った。福井大学でも、図書館で著作権の質問に答えてもらえると思う。学生に対しては、例えば、検索したサイトにある画像には著作権があり、使用時にどうしたらよいか知ることは重要。

3) 授業コンテンツの公開（(2) の質疑の続き）

F　米国では、実際にされているように、授業内容をパブリックドメインに公開することも有用ではな

いか。すべての授業が記録されていて、例えば podcast を使い音声で質問に応答するようなことを
LMS の拡張としてできないか。

T　そのとおりだと思う。特に有名な教員や特定の分野で講義を公開するなど、多くの大学が、その大
学のユーチューブのチャンネルやアップルチャンネルも持っていて、自由に公共の媒体にアップロー
ドされ、自由に見ることができる。教育は、ご承知のように世界に対して行うものだと思う。

4）今後の LMS の活用について

　LMS についていろいろな実践と課題が提案された。要は、教員の手間がかからず、教育効果があが
るにはどうしたら良いかということだ。情報の共有とともに、学生は受け身の授業をするだけではなく、
学んだことの活用、説明、他者の評価を通じて深く学んでいくことに尽きるということが伺える。その
ためには、授業内容の特性や教員の個性などにもよるが、教員の関与なしに学生を自然な学びに導くか
ということに尽きるのではないか。

　医学部の例では、診察という「実務」を意識した教育をしているが、「活用を意識した学び」「学んだ
ことの説明」「他者の評価を行う」ということは、社会の中での仕事のプロセスと重なる。学生にとっても、
教員にとってもこのように大学で学ぶ事自体が社会に出てから、それぞれの立場で仕事をしていく能力
を育成していくのだと言う意識が大切なのではないかと今回の討論内容を見ていて改めて意識させられ
た。

　キャリア教育や社会での即戦力を要求されているように言われているが、このような各分野での学生
の協働的学習の過程が「社会の中で生きゆく力」に直接つながるのではないかという感を強くした。

Schedule

視察日程

Date	Time	Schedule	Venue
May 24 (Wed)	9:30	Arrival at the University of Fukui	
	9:30－11:30	Meeting Session with Faculty Members of the Department of Professional Development of Teachers	6th floor, Education Building 1
	11:30－13:30	Lunch Meeting with Bunkyo Campus Students	Global Hub, Language Center
	14:00－14:30	Courtesy Visit to President	President Room
	14:30－16:30	Meeting Session with Faculty Members of the School of Engineering and Medical Sciences（LMS）	Conference Room, 2nd floor, Administration Building（Bunkyo Campus） Conference Room, 3nd floor, Administration Building（Matsuoka Campus）
May 25 (Thu)	9:30－10:30	Meeting with Language Center Instructors（English Education Curriculam・Class）	LC1, Language Center

	10:30－12:00	Class Observation
		  ＜General Education＞
		 "English Ⅰ"
		  Tsushima Walter Satoshi (Assistant Professor for Language Center)
		  ＜Specialized Education＞
		 "English Composition Ⅰ"
		  Kobata Laura Ellen (Senior Assistant Professor for Language Center)	

	13:30－16:30	Meeting Session with Faculty Members of the School of Global and Community Studies	Community Plaza, 2nd floor, Education Building
	16:30－18:00	Meeting with Students of the School of Global and Community Studies	Conference Room, 13th floor of the Tower
May 26 (Fri)	9:30－10:50	Meeting with Members of the Board	Conference Room, 2nd floor, Administration Building

日　時		視 察 内 容 等	場　所
5 月 24 日 （水）	9:30	福井大学　到着	
	9:30 – 11:30	教職大学院関係者と意見交換会	教育系 1 号館 6 階 コラボレーションホール
	11:30 – 13:30	文京キャンパスの学生との昼食懇談会	大学会館 2 階 グローバルハブ
	14:00 – 14:30	学長への表敬訪問	学長室
	14:30 – 16:30	LMS の活用について学内教員との意見交換会	本部棟 2 階第一会議室
5 月 25 日 （木）	9:30 – 10:30	語学センター教員との懇談会（英語教育カリキュラム・授業）	大学会館 2 階　LC 1
	10:30 – 12:00	授業視察 　共通教育　「English Ⅰ」 　ツシマ　ウォルター　サトシ　特命助教　（語学センター） 　専門科目　「英作文Ⅰ」 　コバタ　ローラ　エレン　特命講師　（語学センター）	
	13:30 – 16:30	国際地域学部教員との意見交換会	教育系 1 号館 2 階 コミュニティ・プラザ
	16:30 – 18:00	国際地域学部学生との懇談会	総合研究棟 13F 大会議室
5 月 26 日 （金）	9:30 – 10:50	役員・教員等との懇談会	本部棟 2 階第一会議室

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