To: Florence Clark, PhD, OTR/L, FAOTA  
    President, AOTA

From: Thomas Fisher, PhD, OTR, FAOTA  
    Chair, Ad Hoc Committee –Future of Occupational Therapy Education

Date: February 11, 2013

Re: Final Report and Recommendations from the Ad Hoc Committee

Background:

You appointed an Ad Hoc Committee two years ago to address issues facing occupational therapy education. The Ad Hoc Committee was made up of five deans representing private and public institutions, myself and Neil Harvison, PhD, OTR, FAOTA–Director of Accreditation and Academic Affairs at AOTA. Dr. Harvison was the staff liaison for the Ad Hoc. (I want you to know Dr. Harvison’s ability to capture the outcomes of our discussions, communication with the Ad Hoc and the task groups was exemplary). In total, because of the task groups, there were 30 volunteers who participated in this very important initiative you facilitated. The Ad Hoc Committee members included:

    Janice Burke, PhD, OTR, FAOTA–Dean, Thomas Jefferson University, Philadelphia, PA  
    Penny Moyers Cleveland, EdD, OTR, FAOTA–Dean, St. Catherine University, Minneapolis, MN  
    Charlotte Exner, PhD, OT/L, FAOTA–Dean, Towson University, Towson, MD  
    Thomas Fisher, PhD, OTR, FAOTA–Chair, Department of OT, Indiana University, Indianapolis, IN  
    Cynthia Hughes Harris, PhD, OTR, FAOTA–Provost and Vice-President of Academic Affairs, Florida A & M, Tallahassee, FL  
    Charlotte Royeen, PhD, OTR/L, FAOTA–Immediate Past Dean, St. Louis University, St. Louis, MO  
    Neil Harvison, PhD, OTR, FAOTA–Director of Accreditation and Academic Affairs, AOTA

I was asked to chair the committee. At the time, I was on the AOTA Board of Directors. There were six areas which had been identified needing a discussion because of their influence on occupational therapy education, practice and/or research. The focus of the Ad Hoc was to project what education should be because professional education in occupational therapy is the foundation and contributor to the maturing of the profession, research enterprise and overall recognition by society of the profession.

The six areas identified (external funding/career scientist development, teaching/learning scholarship, fieldwork, faculty shortage, blueprint document and maturing of the profession) had task groups appointed. These task groups had expertise in the area they were appointed. Several task groups had professionals from other disciplines participating in the discussions. This allowed for the discussion to go
beyond just the experts in occupational therapy. Each task group (also called work groups at times) was given the questions they were to address within the broad title of their group.

The External Funding Task Group’s recommendations were submitted to you in September. The Board of Directors received the report during their October 2012 Board Meeting. All recommendations were accepted. It is our understanding the Executive Director of AOTA and Executive Director of AOTF are engaged in a meaningful conversation to prioritize the recommendations and develop a timeline for the implementation to advance the initiatives.

The Ad Hoc Committee has been meeting at least quarterly to discuss the progress of each of the task groups, providing feedback to their initiatives and reflecting on the environmental trends (economic, legislative, educational, political, etc.). The five remaining task groups provided us their recommendations during December and this month. We deliberated and had lengthy discussions in order to present a set of recommendations to you.

1. Scholarship and Research in Education Task Group:

The task group was charged to address the following questions:

1. How do we develop the profession’s capacity for scholarship and research in OT/OTA education?
2. What should be the venues to support scholarship in teaching/learning research in occupational therapy education?

The full report of the task group is attached (Attachment #1). The following recommendations are being endorsed by the Ad Hoc Committee:

**Recommendation 1:** Establish a research agenda for occupational therapy education. The research agenda should be applicable to education within the domain of occupational therapy as well as across health professions (interprofessional education). Investigation of education processes and outcomes centered on critical questions central to preparing and ensuring that graduates are able to assume collaborative roles, ready to provide competent, efficient care.

**Recommendation 2:** Develop a mechanism(s) to provide occupational therapy faculty members with the requisite skills and knowledge to conduct education research.

**Recommendation 3:** Sponsor research to identify signature pedagogy for occupational therapy education.

**Recommendation 4:** Sponsor research to evaluate innovative models of education including workplace learning to identify what is/ is not effective in preparing students for future practice.

**Recommendation 5:** Sponsor research to promote cross-health professions investigations on education processes and outcomes centered on critical questions related to preparing and ensuring graduates ready to provide competent, efficient care in a collaborative interprofessional model.
Recommendation 6: Establish opportunities for dissemination of research and scholarship focused on occupational therapy education.

2. Blueprint Adoption Task Group:

The task group was charged to address the following questions:

1. How has the Blueprint been used to inform OT and OTA education?
2. When educational programs have used the document, what were their outcomes?
3. Is the document compatible with ACOTE Standards?
4. Is the content in the document being considered and adopted by programs?
5. Should COE bring formal action to the RA for adoption?

The full report of the task group is attached (Attachment #2). The following recommendations are being endorsed by the Ad Hoc Committee:

Recommendation 7: Develop strategies and resources to increase acceptance of the Blueprint in curriculum and other aspects of the OT programs. This should include a resource guide with concrete examples of applications that align Blueprint content with ACOTE Standards, Model Curriculum, OTPF, and/or AOTA Level II FW Performance Evaluation.

Recommendation 8: Once the resources are established for the OTD, develop strategies and resources to increase acceptance of the Blueprint in curriculum and other aspects of the OTA programs. This should include a resource guide with concrete examples of applications that align Blueprint content with ACOTE Standards, Model Curriculum, OTPF, and/or AOTA Level II FW Performance Evaluation.

3. Faculty Shortages Task Group:

The task group was charged to address the following questions:

1. How do we identify and develop a model to put OT / OTA students on a career track for future roles in academia?
2. What are the best practices and what can be learned from other professions?

The full report of the task group is attached (Attachment #3). The following recommendations are being endorsed by the Ad Hoc Committee:

Recommendation 9: Create at a minimum 5 doctoral fellowships a year.

Recommendation 10: Graduate program directors to commit to identifying at least 3 students each year in their entry-level professional program that have potential as future educators and encourage them to consider this in their career trajectory.

Recommendation 11: COE to develop a plan and strategies on how to recruit, develop, mentor and retain OT educators. It must be clear that this is a lifestyle change that requires planning. Initiatives
must address the issue of retention. COE should include current initiatives in the plan to include: (1) The annual pre-conference institute on “Transitioning from Practice to Education”; and (2) the program under development at the request of the Centennial Vision Committee to develop faculty for roles as leaders in academia.

4. Fieldwork Task Group:

The task group was charged to address the following questions:

1. Is “fieldwork” the correct terminology? What terminology would be understandable to the wider community?
2. What should be the fieldwork educational models?
3. How do we advocate for funding to support models?
4. How do we integrate interprofessional education; primary care role and other emerging within the FW models?

The full report of the task group is attached (Attachment #4). The following recommendations are being endorsed by the Ad Hoc Committee:

**Recommendation 12:** Sponsor an inter-professional coalition to address the impact of the following issues on clinical education and the ability of academic programs to meet the workforce demands: (1) lack of understanding by healthcare facilities of the value, costs and opportunities of clinical education including true impact on productivity and reimbursement; (2) the emerging practice of charging academic programs for student placements; and (3) potential impact of changes on the cost of fieldwork education to students and academic programs.

**Recommendation 13:** Sponsor a study of the FW placements being utilized across the country. How dependent are we on healthcare reimbursed settings to meet FW Level II? What is the percentage of FW sites in health care; school system practices; non-traditional settings and community based settings?

**Recommendation 14:** COE to develop structured guidelines for expected student learning outcomes for Fieldwork Level I and II.

**Recommendation 15:** Retain the current terminology for fieldwork.

5. Maturing of the Profession Task Group:

The task group was charged to address the following questions:

1. What makes us unique?
2. What is our signature educational strategy?
3. Does the profession have “autonomy” in decision-making in practice?
4. How does the profession accept “power” and make decisions to move forward?
5. How do we do this?
The full report of the task group is attached (Attachment #5). The Ad Hoc Committee did NOT endorse the task group recommendation to move the entry-level degree for the OTA to the bachelor’s level. The following recommendations are being endorsed by the Ad Hoc Committee:

**Recommendation 16:** AOTA adopt a mandate that entry-level-degree for practice as an occupational therapist be a doctorate by 2017 with a requirement for all academic programs transition to the doctorate by 2020.

**Recommendation 17:** Refer the following recommendations to the AOTA/AOTF Research Advisory Panel for consideration:

- **Harvest the potentials of the discipline of occupational science** for occupational therapy through: research on occupation in relation to health and practice; increased critical conversations regarding the interrelationships of basic and applied research on occupation through the widening of the scope of publication venues; and research on and enhancements to occupation-centered education.

- **The profession should prepare for 2050, through research and education that is responsive to projected changes to occupations, lifestyles, cultures, health conditions, economics, ecology, and systems of health care, education, and research.**

- **Make the understanding of how change typically works and is effectively facilitated a core knowledge and competency of occupational therapists through: research and theory development** in regard to occupational change, and improvements within educational programs to students’ understanding and competencies in facilitating change in clients’ occupational patterns.

**Recommendation 18:** The following issues should be forwarded to the BOD for consideration:

- **Professional autonomy is, and should be, an ongoing goal.** As technical occupational therapy knowledge and skills and socioeconomic factors change, the need to re-examine the potential threats to professional autonomy arise and must be addressed to avoid de-professionalization.

- **Vigilance is required at the local, state, national and international levels.** Develop a monitoring system as occupational therapy is not immune to any of the technical practice) and socioeconomic factors that threaten professional autonomy.

- **Monitor major sources of threats** such as changes in state and federal legislation (e.g., licensure laws and rules, trends in educational funding, state and federal regulations related to health insurance reimbursement); actions of other professions to change their scope of practice (e.g., medicine, physical therapy, speech language pathology, psychology, recreation, music, athletics, kinesiology, orthotics and prosthetics, and others); changes in organizational management of hospitals, clinics, and other organizations; changes in accreditation processes, credentialing mechanisms, and educational trends; changes and innovation in technology; changes in societal views regarding health and wellness; and social changes regarding the role and function of professions in society.

- **Continue to evolve the profession in order to ethically take power versus waiting to accept power;** this can be facilitated through AOTA increasing leadership development projects, enhancing curriculum content and developing mentorship strategies so that occupational therapy practitioners increasingly accept the positive influence and benefits of power.
• **Increase political and jurisdictional power** by mentoring occupational therapy practitioners into running for local, state, and federal elected positions.

• **Increase occupational therapy’s presence in business**, including Fortune 500 companies.

**Recommendation 19:** The BOD should consider including the following recommendations that address acceptance of power impacting maturation of the profession in the Board’s ongoing strategic planning initiatives.

• **Continue to evolve the profession in order to ethically take power versus waiting to accept power**, this can be facilitated through AOTA increasing leadership development projects, enhancing curriculum content and developing mentorship strategies so that occupational therapy practitioners increasingly accept the positive influence and benefits of power.

• **Define and determine the type, scope, and focus for power in occupational therapy** that is consistent with the philosophical and values bases of the profession.

• **Increase grass roots opportunities and avenues for diversity in race/ethnicity, culture, and gender for leadership laddering** that are not limited to the few. Apply these models to educational, practice, organizational, and global settings.

• **Re-evaluate innovative models from other professions** and semi professions in healthcare, and other industries to see how successful hyperchange has occurred.

• **Address internal professional confusions** and identify roles for the greater good of occupational therapy and occupational science, without drawing rigid boundaries. Internal unbalance creates an external chaos that makes a profession more vulnerable to infringement.

• **Identify gaining power as a foothold** to the academic and service delivery market place in the strategic plan.

• **Seek non-traditional arenas to forge new opportunities** for occupational therapy.

• **Increase breadth and depth of doctorate education** and funding to include research scientific tracks, practice evidence tracks, and expand post doctorate opportunities and internal professional funding for occupational therapists and occupational scientists.

• **Develop strategies to use power effectively** to benefit clients of all socioeconomic, cultural, and diverse backgrounds.
Scholarship and Research on Occupational Therapy Teaching and Learning
Report to AOTA Ad Hoc Committee for Future of OT Education
January 7, 2013

Task Force Members:
Janice P. Burke, PhD, OTR/L, FAOTA Thomas Jefferson U
Deborah Amini, EdD, OTR/L, CHT East Carolina U
Andrea Bilics, PhD, OTR/L, FAOTA Worcester State U
Barbara Hooper, PhD, OTR/L, FAOTA Colorado State U
Wendy Stav, PhD, OTR/L, SCDCM, FAOTA Novasoutheastern U
Neil Harvison, PhD, OTR/L, FAOTA AOTA

With participation from:
John White, PhD, OTR/L Pacific U (participated in initial meeting)
Ellen Cohn, DrSc, OTR/L, FAOTA Boston U (participated in final meeting)
Deborah Hanson, EdD, OTR/L U North Dakota (participated in Ed Forum)
Jyoti Gupta, PhD, OTR/L ST Catherine’s U (participated in Survey Development, Educ Forum activities, Education Summit development)

Ad Hoc Committee Questions:
1. How do we develop the profession’s capacity for scholarship and research in OT/OTA education?
2. What should be the venues to support scholarship in teaching/learning research in occupational therapy education?

Venues for Task Force Discussions and Actions to date
The task force met by conference call beginning March 2012 through November 2012. The task force members were acquainted with one another as a result of their contemporaneous involvement in education research and scholarship concerns across their professional and volunteer roles within occupational therapy including members/leaders in: Program Directors, COE, Society of Teaching and Learning (SoTL AOTF), faculty. Given these connections, the task force made use of these synergies by integrating their discussions into actual activities and meetings over the course of the year, each informing and influencing the other.

Information on emerging needs and issues related to the Task Force foci played out in a number of arenas including: COE, Education Forum conference presentation for the AOTA 2012, Education Summit Planning Committee and OT/OTA Program Directors and AFWE meetings, these overlapping concerns were integrated into the task force deliberations. The arenas for activity and discussion included:

1. **AOTF Scholarship of Teaching and Learning (SoTL) initiative.** In June 2011 Dr. Charles Christiansen held a discussion with SoTL leaders Andrea Bilics and John White and Janice Burke as PRODEC Chair and Neil Harvison that AOTF would move away from supporting this ongoing effort. This was an ongoing institute that provided educators with opportunities to partner with more
experienced faculty to develop educational outcomes projects. Dr. Christiansen recommended moving to a model of a collaborative consortium.

2. **OT/OTA Program Directors, Spring 2011.** In this meeting Program Directors called for specific AOTA sponsored venues for education based research presentation and publication. Following the April 2011 OT/OTA Program Director’s meeting it became apparent that we needed to adopt an aggressive strategy to understand the needs of educators who wish to engage in scholarly activities recognized through publication and presentation. In August 2011 Janice met with AOTA leadership to discuss how we could understand those needs including the need to understand capacity – how many faculty were engaged in education research? How many were seeking venues for publication of educational research and scholarship? Would that number support a journal issue? A free standing journal? A special conference for this topic?

In September the task force discussed the need to survey the academic community to understand: current and future capacity to produce research, the kinds of work in educational outcomes currently completed or underway, the record of publication to date and the publication venues, the importance of a journal’s impact factor, how other professions were addressing this area of research. Additional information regarding feasibility for publication was discussed with AJOT staff.

By the end of the year the task force was working on the survey alongside individuals who would be presenting the Education Forum at conference in April 2012.

3. **Survey on Research and Scholarship March 7, 2012.**

Surveyors: J.Gupta, A.Bilics, D.Hanson, B.Hooper, J.Burke, N.Harvison. Distributed to OT /OTA Educators, 470 full time educators indicated a marginal amount of research and publication activity in scholarship and research in teaching and learning across all OT higher education settings with high interest and need (Attachment 1- Faculty Scholarship and Research in Education Survey, 2012). Survey results were used to inform the Task Force, the Educational Forum that was planned for AOTA April 2012, the Education Summit planned for October 2013.

4. **AOTA EDUCATIONAL FORUM, AOTA Annual Conference, April 2012.**

Presenters: J.Gupta, A.Bilics, D.Hanson, B.Hooper, J.Burke, N.Harvison.

Objectives: 1. Analyze the current state of occupational therapy education research; 2. Create a visionary education research agenda for the profession; 3. Create an implementation plan to achieve the visionary education research agenda.

During this session 100 occupational therapists participated in an exercise designed to develop a national framework for establishing educational research priorities. Participants responded to questions at both the macro (profession wide
education research) and micro (research on initiatives in the classroom, lab and fieldwork settings) levels.

A matrix was presented as an organization device for understanding the profession’s present and future educational research needs. Across the horizontal axis: The Profession, The Institution, Faculty, Students. On the vertical axis: Conceptual Framework, Pedagogy, Instructional Methods, Capacity, Competency, Learners and learner resources, Socialization to the Profession. Participants self selected into groups with the intent to identify research questions to specific cells in the matrix. (Attachment 2: Research in Education Forum Indianapolis-2012) (Attachment 3: Research in Education Forum Indianapolis 2012-Participant Data).

5. AOTA Education Summit, October 2013. Planning has begun for a 2-day summit that will provide a venue for keynote/plenary presentations, peer reviewed papers and posters. (Attachment 4: Education Summit 2013 Call for Papers). The task force has collaborated with AOTA to develop the call for papers and the submission review guidelines.

Based on the discussions and activities outlined above the Scholarship and Research on Occupational Therapy Teaching and Learning committee submits the following findings and recommendations.

**Findings and Recommendations:**

**Finding 1:**
Among the broad concerns for supporting education research and scholarship in teaching and learning are questions such as:

How will student outcomes research will be valued at the University level. How must this research be shaped to insure that it will be considered important and valued in the promotion/tenure process?

Should we be looking at research on core competencies for entry-level practice? Institutions such as the Lumina Foundation have been calling for a focus on competency-based outcomes as a measure of readiness for graduation. This represents a move away from completing a prescribed number of credits in order to graduate. The ACOTE content standards are written as competencies and may present an opportunity for OT to move to a competency based model for professional education and away from the credit/course/grade model.

Would this or another model provide a critical mechanism to understand the kind of competencies needed to pass the certification exam? Give a big picture of the techniques and strategies of what students need as they move into the role of effective practitioner? Provide insight into the signature pedagogy in occupational therapy? Offer insight into why practitioners tell students that their education is not valued in clinical practice?
**Recommendation 1:**

**Establish a research agenda for OT/OTA education.**

Occupational therapy faculty need a clearly defined conceptual framework to guide their development of relevant education outcome based questions. A clearly developed set of education research questions need to address: the profession of OT, the educational and academic health institutions where students are prepared for their professional roles, the student OT as a learner, the faculty as educators.

The work that began at the Education Forum at the 2012 Annual Conference provides a critical start point for setting the agenda. Faculty capacity has been established and a cross section of OT educators has produced a bank of potential research questions across areas of relevance as outlined by the task force and educational forum participants. The next step is to complete an in depth analysis of the potential questions that have been generated, test fit those questions to the conceptual framework and finalize a relevant research agenda to inform and guide the future of professional education of OT/OTA students. This recommendation will require the appointment of the task force as a committee to establish the educational research agenda and the commitment of resources to support a two day face to face consensus meeting to establish the research agenda.

**Finding 2:**

OT/OTA faculty need to develop the skills and knowledge to lead and participate in rigorous education based outcome research. Faculty need to understand a myriad of foundational information such as: pedagogically sound methods and procedures for discovering unique characteristics of OT/OTA education, the most effective methods for assessing teaching and learning, and factors impacting successful outcomes of classroom, lab and clinical experiences. With this information faculty will be able to address the education research agenda and produce the relevant studies that are critical to establishing and supporting our signature pedagogy.

**Recommendation 2:**

**Develop a mechanism(s) to provide OT/OTA faculty with the requisite skills and knowledge to conduct education research.**

Multiple strategies could be employed within existing educational efforts:

- Topics included within the OT/OTA Program Director’s meetings with additional faculty invited to attend selected meetings;
- Biannual Education Summit;
- AOTA online continuing education offering or similar effort.

In addition, it is recommended that the SoTL program be supported as an AOTA effort providing annual pre-conference workshops and ongoing mentoring circles for faculty completing the workshops; and that ongoing data on the results of SoTL efforts to date be used to inform future activities (Attachment 5: SoTL Program Proposal).
Finding 3:
Given the high priority for developing a clear understanding of OT/OTA academic and clinical preparation AOTA and OT/OTA faculty, AFWC and clinical fieldwork supervisors will benefit significantly from opportunities to present their research findings, develop networks of collaborators, present and develop ideas for future inquiry and share effective methods of teaching and learning.

Recommendation 3:
Establish opportunities for dissemination of research and scholarship focused on occupational therapy education.

Opportunities would include:
- Establish the Education Summit model as a bi annual conference that occurs in fall and coincides with the OT/OTA Program Directors meetings.
- Provide a separate Research Track for education presentations at AOTA Annual Conference and include networking opportunities.
- Explore the possibility of sponsoring an online publication of peer reviewed papers on topics in education.

References


The Blueprint Task Group was assembled in April 2012 and met via eight conference calls from June through December 2012. Members were:

- Diane Parham, Chair, University of New Mexico
- Christine Berg, Washington University in St. Louis
- Lea Brandt, Missouri Health Professions Consortium
- Katherine Dimitropoulou, Long Island University
- Maureen Nardella, North Shore Community College (Massachusetts)

The specific charge was to make recommendations to the Ad Hoc Committee in response to the following questions:

- How has the Blueprint been used to inform OT and OTA education?
- When educational programs have used the document, what were their outcomes?
- Is the document compatible with ACOTE Standards?
- Is the content in the document being considered and adopted by programs?
- Should COE bring formal action to the RA for adoption?

In order to gather information needed to meet this charge, the Blueprint Task Group conducted a faculty survey that addressed the questions regarding applications and usefulness of the Blueprint in OT and OTA education. Responses of 748 faculty in OT and OTA programs were analyzed to create a picture of faculty perceptions of the Blueprint document via quantitative summaries of Likert scale responses and qualitative analyses of open-ended responses. To address the question regarding compatibility of the Blueprint with ACOTE Standards, we conducted a content analysis and comparison of the two documents. Results of the survey and content analysis were used to generate our recommendations.

In this report, a brief integrative summary of findings is presented first, followed by recommendations. Supporting data are then discussed in detail. Appendices contain a content analysis matrix of Blueprint and ACOTE Standards compatibility (Appendix A, pp. 13-15), and individual item analyses for qualitative (Appendix B, pp. 16-30) and quantitative (Appendix C, pp. 31-53) survey questions. The entire on-line survey also can be viewed in Appendix C.
Executive Summary

As many as one-third of faculty (OT and OTA combined) may be unaware of the existence of the Blueprint document. Use of the Blueprint document is generally very low, even among faculty who are aware of this document. Some faculty express interest in using it but are deterred by lack of clarity regarding its purpose and how to actually apply this document to curriculum or program development. Many who use it seem to do so only to check and validate what they are already doing, rather than to guide the development or evolution of the curriculum. It is clear that other documents within and outside the OT profession are much more influential than the Blueprint in OT and OTA academic program development, particularly the ACOTE Standards and the Occupational Therapy Practice Framework (OTPF).

Because the Blueprint is a relatively new document, long-term outcomes of Blueprint use with respect to alumni practice patterns cannot yet be ascertained. More immediate impacts of Blueprint use on curriculum design or program development are very limited. A small number of programs may have benefitted from Blueprint use by expanding the curriculum to include person-centered content such as spirituality, and environment-centered content such as community support and development.

The Blueprint document is compatible with ACOTE Standards (i.e., these documents do not conflict with each other), but it is not clear how they might be used together, along with other key documents such as the OTPF and Model Curriculum, in the process of curriculum design or program development. Although some faculty assert that AOTA should put no further resources into Blueprint dissemination or development, others suggest that it may be useful for AOTA to develop resource materials and workshops for faculty that demonstrate, with specific examples, how documents including the Blueprint may be used in an integrative fashion to guide curriculum and program development.

Recommendations

Our recommendations fall under two headings posed as questions. The first question was a direct charge to the task group. The second question was created by the task group to help focus AOTA planning regarding the future of the Blueprint document.
Should COE bring formal action to the RA for adoption?

No, we do not recommend this action, as it would not resolve the key problems that we found regarding usefulness of the Blueprint: (1) the purpose of the Blueprint document is not clear to faculty, and (2) faculty do not know how to use this document in curriculum development, in conjunction with other relevant documents such as the ACOTE Standards, OTPF, and Model Curriculum. Although some faculty use and value the Blueprint, a more prevalent viewpoint is that the Blueprint is “one more document” that brings little if any value to the process of curriculum development. We are concerned that pushing for adoption of the Blueprint at the current time may be counterproductive, considering that few faculty understand or appreciate this document.

Should the Blueprint document be advocated by AOTA in any form? If so, in what form and how?

We recommend that AOTA focus on addressing a key problem we uncovered: that faculty generally do not know how to use the Blueprint document, in concert with other relevant documents, to design and reshape curricula in ways that will move the profession toward the Centennial Vision. Instead of specifically advocating for use of the Blueprint document, we recommend that AOTA should promote use of a comprehensive process of curriculum development, emphasizing how to use multiple curriculum design tools in an integrated, ongoing fashion. This recommendation builds on the strong endorsement by faculty (82% of 546 responses) of the following strategy to maximize the usefulness of the Blueprint document: “Revise into a resource guide with concrete examples of applications that align Blueprint content with ACOTE Standards, Model Curriculum, OTPF, and/or AOTA Level II FW Performance Evaluation” (survey item 26). This particular endorsement suggests creation of a new resource guide that demonstrates how multiple documents, including Blueprint content, can be integrated with ACOTE Standards and other documents to plan curricula. In this strategy, Blueprint content would be merged into a more comprehensive guide to curriculum development that emphasizes the process of building and maintaining the quality and currency of a curriculum. Ideally, faculty could access the integrated resource guide to curriculum development and related documents in one location, such as the AOTA web site.
Within a comprehensive guide to curriculum development, Blueprint content could aid with selecting and integrating specific knowledge into curricula and specific courses so that ACOTE Standards are met and new OT and OTA graduates are prepared for practice that aligns with the Centennial Vision. Here is an example to demonstrate how the integration of Blueprint content with current ACOTE Standards might look, with respect to Master’s Degree OT and OTA Standard B2.9: “Express support for the quality of life, well-being, and occupation of the individual, group, or population to promote physical and mental health and prevention of injury and disease considering the context (e.g., cultural, personal, temporal, virtual) and environment.” The Blueprint could assist faculty in developing curricular and course content relative to this standard in several ways:

- identification of relevant topics and corresponding concepts within specific person-centered, environment-centered, and occupation-centered Blueprint factors;
- integration of these topics and concepts into the curriculum, with reference to specific scientific bases for current knowledge; and
- recognition that particular aspects of the curriculum may need to be revised or further supplemented to assist students in developing skill sets that can be implemented in various areas of practice.

Our data showed that the OTPF is almost as widely used in curriculum development as the Standards. This finding was interesting, as the OTPF is designed to be a template for practice, rather than education. Whereas ACOTE Standards present the minimum requirements for program accreditation, the OTPF presents a structure for organizing practice from an occupation-focused, client-centered perspective. However, the OTPF does not offer a community-based practice orientation that the Blueprint strongly supports. Additionally, the Blueprint contains content related to professionalism and professional communication, which is missing from the OTPF but is represented in ACOTE Standards. We envision that, if an integrative guide to curriculum development in occupational therapy (OT and OTA levels) were to be developed, the inclusion of Blueprint content may help to serve as a bridge between ACOTE Standards for education and the practice focus of the OTPF. Moreover, if the OTPF is to be revised soon, the timing may be good for developing a comprehensive guide to curriculum development, so that the potential for integration of the OTPF with other documents can be maximized for purposes of curriculum planning.

We recognize that if the Blueprint content is to be used in the future, whether as a separate document or as part of a comprehensive curriculum planning resource, it will need to be frequently
updated in order to keep pace with current and emerging knowledge. We also anticipate that development of a comprehensive curriculum planning resource will require active dissemination, including workshops and presentations for faculty. These activities will require financial and workforce resources from AOTA.

A final caveat is that if a comprehensive curriculum planning resource were to be developed, efforts should be made to address concerns about this document that were expressed by some faculty. We recommend that this resource tool should not be overly prescriptive; it should be adaptable to different curriculum structures and educational philosophies. It should be made clear that use of this curriculum planning tool would allow programs the flexibility to tailor their curricula in creative ways that build on local resources, unique assets, the particular educational philosophies of their programs, and the missions of their institutions.

Supporting Data

Compatibility of Blueprint with ACOTE Standards and Other Documents

We analyzed the compatibility of the Blueprint with ACOTE Standards by conducting a content analysis in which the current ACOTE Standards were examined for goodness of fit with Blueprint Topics, Concepts, Science, Skills, and Areas of Practice, within each set of Blueprint Factors (Person-Centered, Environment-Centered, Occupation-Centered, and Professional and Interpersonal). A matrix presenting results of this analysis is located in Appendix A (pp. 13-15). Results indicate that the Blueprint document is compatible with the ACOTE Standards, although the two documents are not linearly aligned due to differing structures and purposes. Both documents appear to follow Bloom’s taxonomy (cognitive, affective, and psychomotor domains), with respect to the “skills” identified within the Blueprint and the descriptions of what “the student will be able to do” in the ACOTE Standards. Both documents support skill development as critically based on understanding and integrating knowledge related to underlying factors. They both also support the implementation of skills across variable contexts and areas of practice.

We noted that the Blueprint is also compatible with the language of the OTPF, which our data indicate is the second most influential document used in OT curricula development, after the
ACOTE Standards. However, the Blueprint includes areas not clearly addressed by the OTPF, namely, community-oriented practice, professional communication, and therapeutic use of self. The Blueprint also expands on terminology relevant to the ICF and the AOTA Centennial Vision, particularly the emerging areas of practice. The Blueprint identifies the various sciences fundamental to or developed within the occupational therapy profession, emphasizing the science-driven aspects of the profession. The Blueprint further emphasizes the use of critical thinking and analytical skills needed to develop OT practitioners who will enter diverse areas of practice.

The Blueprint omits information and terminology related to interprofessional collaboration, i.e., in regard to the specific roles of OTs and OTAs. It also does not differentiate across different levels of entry-level OT education (e.g., doctoral, master’s, and associate degrees). The Blueprint document acknowledges that it is not intended to “provide details about how or what to teach different levels of occupational therapy personnel,” however, concepts and skills of collaboration and supervision among occupational therapists and occupational therapy assistants is critical to the document’s intent to “prepare practitioners to address the future needs of society.” Although the term interprofessional collaboration is lacking in the Blueprint, this document does include community collaboration and social interaction/community interaction as skills.

**Survey Results: Faculty Perceptions of the Blueprint Document**

The on-line survey of faculty perceptions of the Blueprint document was designed specifically to address the charges to this task group. The Education Operations Office of AOTA provided support with questionnaire formatting and entry using Zoomerang, as well as survey release using AOTA email lists. Special thanks are due to Valeta Njoroge and Neil Harvison for their assistance with survey administration.

The survey initially opened in mid-August 2012. Faculty received two follow-up reminders before the first run of the survey closed in mid-September 2012. At this point we had 405 respondents, and decided it would be optimal to attempt to recruit more participants. In an effort to increase the response pool, task group members prepared a brief PowerPoint talk on preliminary survey results that was presented by Thomas Fisher at the Program Directors meeting in October 2012. Subsequently we re-opened the survey for an additional 9 days, in which we accrued 343 more respondents. The survey closed in late October 2012.
**Description of Respondents**

Respondents were 748 faculty in entry-level OT and OTA programs who were asked to fill out the survey in reference to one entry-level program in which they teach. Approximately 1/3 of the respondents represented OTA programs. Most of the remaining respondents represented Master’s level OT programs. Only 4% represented entry-level OTD programs.

A little over 1/3 of the respondents (N=262) were program directors of the entry-level program they represented. A little more than half (N=396) were full-time faculty members. The remaining 12% were part-time or adjunct faculty (N=90). Approximately 1/3 of the total group of respondents (N=246) stated that they were not aware of the existence of the Blueprint document prior to hearing about this survey.

**Resources Rated as Helpful in Curriculum or Course Development**

Respondents were asked to rate 14 documents, including the Blueprint document, for how helpful each one was in developing or revising the curriculum or courses. (See Appendix C, item 25, pp. 49-51.) Most respondents completed this section of the survey (N=578). Over 70% of the respondents to this section of the survey gave the highest rating (“very helpful”) to two documents: ACOTE Standards (77%) and the Occupational Therapy Practice Framework (OTPF) (72%). In contrast, the majority of respondents (66%) gave the lowest ratings (“not used/not at all helpful” or “minimally helpful”) to the Blueprint document. The 14 documents and their average ratings of helpfulness (with highest possible being 4.00) are listed below in descending order of helpfulness:

- ACOTE Standards (3.68)
- OTPF (3.64)
- NBCOT exam results (3.07)
- AOTA fieldwork evaluation form (3.01)
- Resources on models of practice or frames of reference (2.93)
- AOTA Centennial Vision (2.87)
- Other scholarly resources (2.81)
- ICF (2.66)
- Model Curriculum for OT or OTA programs (2.57)
- Healthy People 2020 (2.35)
- Centers for Disease Control and Prevention (CDC.gov) (2.24)
• Blueprint for Entry-Level OT Education (2.20)
• AOTF Research Priorities for Occupational Therapy document (2.17)
• Research priorities of government agencies (1.95)

**Ratings of Overall Relevance and Application of the Blueprint Document**
A discrepancy was apparent between respondent opinions about the potential value of the Blueprint document and their reports of the actual use of this document in curriculum development. Most respondents who were aware of the Blueprint document indicated that they saw a connection between the Blueprint document and preparing future OT practitioners (82% of 454 responses). Less certainty was expressed about the statement “I see the Blueprint for Entry Level Education as an essential document for entry level education that will move the occupational therapy profession toward its Centennial Vision,” with 50% agreeing and 37% not sure. As to whether the Blueprint document had actually influenced development of the entry-level curriculum at their institutions, a small proportion responded affirmatively with “quite a bit” or “extensively” (17% of 450 respondents), whereas 50% responded “not at all” or “minimally.”

**Ratings of Extent of Blueprint Document Use in Particular Domains**
Respondents who acknowledged that the Blueprint document was used at least minimally in curriculum development were asked to respond to additional questions about the extent to which Blueprint had been used in five main domains: (1) in curriculum design (i.e., the overall structure and sequencing of content across the curriculum); (2) to develop individual course descriptions, objectives, or content; (3) to create specific course learning activities and/or assessments; (4) to develop Level I fieldwork opportunities; and (5) to develop Level II fieldwork opportunities. (See Appendix C, items 8, 11, 14, 17, 20, on pp. 36-45) For each of the five domains of potential Blueprint usage (curriculum design, course design, learning activities, Level I FW, and Level II FW), ratings were grouped into three categories: low use (“not at all” or “minimally”), moderate use (“somewhat”), and high use (“quite a bit” or “extensively”). Results showed that, within each domain of possible Blueprint usage, the low use category contained the most responses. The strongest use of the Blueprint document was found for overall curriculum design, with 22% of the 364 respondents indicating high use, but even more respondents (37%) indicated low use of the Blueprint in curriculum design. For each of the other domains, the Blueprint was given low ratings by at least 50% of respondents.
The subsample of faculty familiar with the Blueprint was also asked to identify which of the specific Blueprint factors or related concerns were used in each domain of usage. The most commonly identified factors were occupation-centered and person-centered. However, relatively small numbers of respondents, ranging from only 72 to 193, answered these questions about specific Blueprint factors or applications. (See Appendix C, items 9, 12, 15, 18, 21, pp. 37-46.)

When asked about the extent to which their programs used the Blueprint to identify prerequisites, identify societal needs that the curriculum will address, and guide the professional development of students, faculty most frequently chose “minimally.” (Appendix C, item 23, pp. 47-48.) The predominant response was “not at all” for use of the Blueprint to identify competencies needed by new faculty, and to develop continuing education initiatives.

**Faculty Comments on Specific Uses of the Blueprint Document**

We solicited faculty comments about Blueprint use in five specific areas: curriculum design; individual course descriptions, objectives, or content; individual course learning activities or assessments; Level I fieldwork; and Level II fieldwork. This information was gathered in five open-ended questions which we qualitatively analyzed to identify major themes. Results are detailed in Appendix B (items 10, 13, 16, 19, and 22; pp. 16-22). Response rates were low, ranging from 33 to 111. Many of the comments indicated that the curriculum or courses were consistent with the Blueprint, or that the Blueprint generally stimulated discussion, rather than specifying how the Blueprint had been used to guide curriculum development or changes to the educational program. Comments that presented specific applications of the Blueprint described using it to:

- establish core concepts to be covered in courses,
- adopt Blueprint nomenclature and taxonomy in curriculum development and redesign (including names of courses, curricular themes, and curriculum threads),
- identify gaps and overlaps in content of courses, and plan courses accordingly
- develop student assessments based on Blueprint practice area topics,
- identify how non-traditional non-OT sites can be used to provide valuable fieldwork learning experiences,
- expand community-oriented content and learning experiences
- consider and select appropriate fieldwork sites, and
- collaborate with fieldwork educators to develop fieldwork learning activities that address all Blueprint factors.
Faculty Comments on How Curricula or Courses Evolved Due to Use of Blueprint

We also presented respondents with an open-ended question regarding how their curricula or courses had evolved due to use of the Blueprint. This question was designed to elicit information regarding outcomes of Blueprint use on curriculum development. Results of qualitative analysis are summarized in Appendix B (item 24, pp. 22-25). Only 17% of the total sample submitted responses to this question (N=125).

For those who reported that the Blueprint had made an impact, the primary ways that programs had evolved due to use of the Blueprint were:

- selection of content to include, reduce, or add across the curriculum,
- expansion of particular content across the curriculum,
- re-organization of the structure of the curriculum,
- re-organization of the process of curriculum planning and development,
- Selection of content for specific courses, and
- Reframing of learning objectives for specific courses.

The most often described impact was selection and expansion of content across the curriculum. Expansion was noted most often in regard to community and population-oriented knowledge and application skills. Also mentioned was addition of content related to political factors, spirituality, and application of OT to primary care.

However, it should also be noted that another group of respondents to this question stated that faculty had considered or tried to use the Blueprint, but this had resulted in little or no impact on curriculum development. Still others indicated that the Blueprint was used primarily to validate or support what the program already was doing, rather than to guide change. Alternatively, some stated that other documents, usually the ACOTE Standards, drove the evolution of the curriculum.

Faculty Recommendations to Maximize the Usefulness of the Blueprint Document

Respondents who were at least minimally familiar with the Blueprint document were asked to rate a list of strategies on whether they might enhance the usefulness of this document. (See Appendix C, item 26, pp. 51-52) For the 546 faculty who responded to this item, the strongest positive response (82%) advocated a strategy to “revise into a resource guide with concrete examples of applications
that align Blueprint content with ACOTE Standards, Model Curriculum, OTPF, and/or AOTA Level II FW Performance Evaluation.” Strategies to integrate the Blueprint with each of these documents, individually, were also endorsed by a majority of the respondents. On the other hand, fewer respondents advocated incorporation of Blueprint content into the NBCOT examination (39%).

Respondents were invited to suggest additional strategies that might be helpful in maximizing the usefulness of the Blueprint document (See Appendix B, item 27, pp. 26-28.) Among the 192 responses to this item, the most prevalent theme emphasized integration of the Blueprint with other guiding documents such as ACOTE Standards, OTPF, and the Model Curriculum. Many called for concrete examples of specifically how the Blueprint might be applied and integrated into curriculum and program development. Some respondents noted that the Blueprint document needs to be publicly discussed in order for educators to become aware or be reminded of its existence. Others called for data or workshops on how the Blueprint has supported programs, e.g., in examples of “best practice” situations. A number of respondents expressed concern that the Blueprint lacks clarity and needs more work to establish consensus on its content as well as how it should be used, whereas others suggested it could be used as a resource for programs, faculty, and conference planning. It should be noted, as well, that approximately 10% of the responses to this question indicated that the Blueprint is irrelevant, unnecessary, and that further development of it would be a waste of the profession’s resources.

**Faculty Perceptions of the Drawbacks That Limit the Use of the Blueprint Document**

A large number of faculty (N=546) responded to the final survey question, which was open ended and asked “What do you perceive as drawbacks that limit the use of the Blueprint document?” Results of qualitative analysis are presented in Appendix B (item 28, pp. 28-30). Responses were coded for themes, and then frequency of each theme was estimated. The top five major drawbacks, beginning with the most frequently noted, were:

- lack of integration with other documents, e.g., ACOTE Standards & OTPF;
- need to focus on ACOTE Standards & NBCOT exam, leaving no time for Blueprint;
- inability to operationalize content due to lack of clarity;
- lack of awareness among faculty; and
- fear that it will limit freedom to tailor programs to their unique settings.
Conclusion

Faculty survey data indicated that few OT or OTA programs use the Blueprint document, primarily due to lack of understanding how it can be used for curriculum development in concert with other relevant documents. ACOTE Standards and the Occupational Therapy Practice Framework are the two documents that currently dominate curriculum development. The lack of use of the Blueprint is not due to incompatibility between the Blueprint and ACOTE Standards. Although these two documents have different purposes and structures, they do not conflict with each other. In forced-choice as well as open-ended comments, faculty opinions suggested that development of resources and workshops for curriculum development would be helpful, to include specific examples that demonstrate how to use multiple documents in curriculum planning. Therefore, this task group recommends that instead of asking COE to bring formal action to the RA for adoption, AOTA should consider the development of an integrative resource for curriculum development in OT and OTA education that integrates aspects of the Blueprint with other key documents. We thank AOTA for giving us the opportunity to gather this information and make recommendations.

Diane Parham, Chair, University of New Mexico
Christine Berg, Washington University in St. Louis
Lea Brandt, Missouri Health Professions Consortium
Katherine Dimitropoulou, Long Island University
Maureen Nardella, North Shore Community College (Massachusetts)
Appendix A

Blueprint-ACOTE Standards Alignment

The following chart represents an attempt to understand the compatibility of the Blueprint document with the newly established ACOTE standards. Shaded areas represent ACOTE standards that refer to knowledge/competencies that are either underlying or evolving.

<table>
<thead>
<tr>
<th>Blueprint: Person-Centered Factors</th>
<th>Topics</th>
<th>Concepts</th>
<th>Science</th>
<th>Skills</th>
<th>Areas of Practice</th>
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### Blueprint: Occupation-Centered Factors

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### Blueprint: Professional and Interpersonal Factors

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Appendix B
Qualitative Analyses of Open-Ended Questions

Item 10: Please describe or provide an example of how Blueprint factors have been used in curriculum design of your program. (N=111)

Major Themes:

1. All 4 factors are used in a variety of ways.
   “The curriculum design of the program is organized around four core concepts or threads which are: Occupation, professional development, OT Process and EBP. The person-centered and Environment-centered factor are embedded in the core concept of occupation”
   
   “Self awareness, interpersonal skills and professional behaviors have been infused into all courses. Professional behavioral standards have been a focus of emphasis over the past year.”
   
   “Occupation-centered interventions are person-centered and influenced by context of the environment. Students learn professional core values and beliefs and develop interpersonal skills and behaviors”

2. Curriculum development
   “As a new, entry-level OTA program, we used the Blueprint to help establish core concepts to be covered within each course, as well as determine course names”
   
   “Our program has undergone a significant curriculum redesign and we used this document extensively as we considered everything from nomenclature for course names to structure of how/when to introduce concepts to our students”
   
   “We use the blueprint to keep our course objectives in alignment to the design of each course, making sure that the students are receiving the education that the OT community deems necessary”

3. Faculty discussions
   “Guiding & generating our basis for discussion for mission, goals, learning objectives, course sequence.”
   
   “Facilitated discussion amongst faculty”
   
   “During our self study for ACOTE accreditation and during our substantial curriculum revision, the matrix was used to check course content and sequencing of courses. It allowed us to see gaps and overlaps in courses.”
Item 13: Please describe or provide an example of how Blueprint factors have been used to develop individual course descriptions, objectives, and/or content in your program. (N=66)

Major Themes:

1. In conjunction with other documents
   “Blueprint factors used in conjunction with ACOTE standards to determine course descriptions, objectives and content, with OTPF at the core”.
   “Courses are designed to focus on various areas of practice and environments as well as address the concepts and skills associated with the Blueprint Factors but more directly organized by the ACOTE Standards and OT Practice Framework.”

2. Factors are useful
   “Each course has objectives and content that deal with each of the four factors”
   “Our curriculum has been based on the following themes that are embedded throughout all the courses in the curriculum: client-centered, occupation-focused, and critical and ethical reasoning.”
   “As previously mentioned 3 first year courses are titled: Domain: Personal Performance, Domain: Context and Environment, Domain: Human Occupation.”

3. Provides terminology/ Language
   “I just worked with a team to revise a course formerly called "Task Analysis" to occupation-based activity. This allowed us to incorporate more occupation-centered and environment-centered concepts and skills into the course description, objectives and content.”
   “Nomenclature; inclusion of key terms; cross checking of content”
   “It has been used as a guide so as to assure that the language reflects concepts and principles as noted in the blueprint”

4. To revise or develop curriculum
   “For each course we must identify one of our "threads" in our curriculum which in turn matches the blueprint factors.”
   “All content across our curriculum uses, or will use, the blueprint factors. As a developing program we are currently working to complete all course content”
   “The blueprint is being used to guide curriculum revision of all courses in our curriculum. For the courses that I am directly involved with, the Blueprint has been especially helpful with laying out content.”

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**Item 16:** Please describe or provide an example of how Blueprint factors have been used to create specific course learning activities and/or assessments in your program. (N=53)

Major Themes:

1. **Community focus**
   “Our students all complete a community rotation. We actually have an OT on our faculty that was hired to supervise all of our level I and II students out on community rotations. She also treats at 3 community-based facilities in our area.”

   “Occupational Profile assignment with clients in Level 1 FW [mental health]; Health education/health promotion service-learning project for elders in the community; faculty-led model of Level 1 FW supervision in Head Start program; Health Fair project for Head Start - children, parents and community; Leadership development plan assignment; and political advocacy assignment”

   “Students in management explore many different community based options of delivery of OT services and then develop their own project/program in an area of service that is of interest to them”.

2. **Building knowledge and skills**
   “Our OT Foundations course placed alot of emphasis on the first exam about students’ knowledge of potential practice settings and the OT’s relationship with other professionals. The blueprints practice area topics was helpful for this part of the course”

   “The blueprint provides a nice taxonomy of knowledge and skills that can be mixed and matched within individual courses.”

   “Blueprint factors are used in designing student practice skills through lab activities. For instance, using PEO factors in evaluating a person’s occupational performance during an assessment.”

3. **Assignments**
   “All of our course learning activities/assessments always either address the Blueprint Factors or we ask the students to relate them to the Blueprint Factors.”

   “Specific projects/assignments are designed to reflect upon the blue print such as designing an activity analysis that follows the OTPF then relating back to the whole person”

   “An assignment was created based on the Environmental Factors Topic and Concept of “Natural Environment” supports and impact on performance and participation: Students checked out a wheelchair and spent the weekend in it. During this time they encountered
many physical barriers that reduced participation in chosen occupations (household navigation, grocery shopping, going out to dinner etc). (they also learn about social and cultural environmental issues during this assignment).”

4. **Integration of learning**

   “Student understanding of the science that underpins practice - I teach a work practice class where the students must apply their knowledge of anatomy and kinesiology along with occupation based activity to the field of work practice.”

   “Analysis of computer workstation to promote concepts related to ergonomics in order to prevent or limit the frequency of repetitive strain injuries”

   “Heavy emphasis on explaining how/why body responds to impairments (whether primary or secondary) and how the person adapts (or not) based on the context.”

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**Item 19: Please describe or provide an example of how Blueprint Factors have been used to Develop Level 1 Fieldwork Opportunities in your program. (N=37)**

Three Major Themes:

1. Designing Level 1 FW objectives, learning activities and evaluation forms to assess attainment of objectives

   Examples:

   - Factors embedded into course description and objectives
   - Develop site-specific objectives on person, environment, occupation, professional behaviors and skills based on the Blueprint
   - Blueprint useful in identifying how non-traditional non-OT sites can be used to provide valuable learning experiences
   - FW objectives include inter/intraprofessional communication and teamwork, professionalism, use of creativity and resourcefullness in “context” of a given environment, and promotion of critical thinking related to “occupation-based” therapeutic activities
   - Students provide reports on client-centered care, context and occupation-based treatments with their clients
   - Occupation emphasized through documentation requirements – how is what you see occupationally relevant?
   - Occupational profile is an assignment in mental health fieldwork
   - Students complete fieldwork assignment that encompass all Blueprint factors (although based on curriculum devised before publication of the Blueprint)
   - Professional behaviors are basis for all Level 1 FW
   - Students develop their own objectives for each Level 1 FW experience to help them develop both their interpersonal and professional skills
Students journal about FW experiences and how they relate to professional growth
Opportunities based off curricular threads – community and grant-writing
Service learning opportunities
Items on Level 1 evaluation address all areas [Blueprint factors]

2. Selecting Sites to Use for Level 1 Fieldwork [as well as Supervisory Models]

Examples:
- Refer to Blueprint as we consider what sites would be appropriate
- Assess how program goals fit with sites
- Traditional and non-traditional sites (no OT Practitioner on site)
- Blueprint useful in identifying how non-traditional non-OT sites can be used to provide valuable learning experiences; useful in brainstorming ideas for potential sites
- Community-based settings (ex. Club Houses, etc.); and community based settings with faculty OTs as mentors
- Community-based FW 1 experiences are sought to exemplify the importance of environmental impact on occupational performance
- In process of moving placements assigned by medical diagnoses (or model) [e.g. physical disabilities or mental health] to occupation-centered, etc.
- Expose students to a variety of placements which challenge them to think about person, environment and occupation
- “occupation-based” as the criteria for selecting/using sites
- Used to develop infant mental health FW opportunity to relate to community resources and policy for foster care

3. Training /Educating Level 1 FW Site Supervisors/Educators

Examples:
- Share educational philosophy and student learning outcomes/FW objectives with FW sites
- Academic Fieldwork Coordinator and faculty host informational sessions/receptions for Level 1 FW educators
- Review goals of the program and how to apply them at site(s)
- Assist FW sites in developing site-specific goals/objectives that fit with program
**Item 22: Please describe or provide examples of how Blueprint Factors have been used to Develop Level 2 Fieldwork Opportunities in your program. (N=33)**

Three Major Themes:

1. **Designing Level 2 FW objectives and learning opportunities/activities**

   Examples:
   - The four factors are embedded into course descriptions and objectives – core concepts of curriculum design emphasized
   - Blueprint factors guide site-specific objectives
   - Attempt to provide FW experiences that incorporate the Blueprint factors
   - Sites are provided suggested activities that reflect each area of Blueprint factors (also overlaps theme 3)
   - Opportunities to use “person-centered” concepts
   - AFWC and FW educators work to provide a balance of experiences that cover all factors (also overlaps theme 3)
   - Blueprint factors used for professional development
   - Developing and onsite FW II that is non-traditional practice by nature – Blueprint an excellent guide for expectations and goals
   - All Level II FW opportunities are “occupation-based”; occupation-based experiences
   - Look at items on AOTA Performance Evaluation; reflected in FWPE
   - Assignments during FW correspond to the professional development and interpersonal factors listed in the Blueprint [students write about business soft skills learned in the program]
   - Students complete assignments while on FW with the hopes that they will remain entrenched in the tenets of our program, though we still have many FW sites that are more entrenched in person factor/impairment-based intervention
   - Increased emphasis in recognizing emotional and psychosocial issues

2. **Selecting Sites to Use for Level 2 Fieldwork**

   Examples:
   - Look for these [Blueprint factors] opportunities when selecting FW sites
   - Choose level II sites that complement what we teach and the items that make our program unique from other programs
   - Use Blueprint as part of new site orientation (also overlaps theme 3)
   - Assess students’ involvement in settings that focus on the above [Blueprint factors] to make sure the fieldwork site is an appropriate match for our curriculum
   - Matching students to the sites that will help them develop professional skills
   - Sites that provide occupation-based experiences
   - AFWC and FW educators work to provide a balance of experiences that cover all factors
3. Collaboration with and Training /Educating Level 2 FW Site Supervisors/Educators

Examples:

- Provide sites student learning outcomes, curriculum design, course syllabi, ACOTE Standards, and Blueprint
- Share success stories of how “premiere” FW sites educate OT students
- Yearly educational seminars for FW sites to keep informed on current practice trends and focus of education/practice
- Communicate with Level II FW sites about curricular approach [but not specifically develop sites based on blueprint]
- Use Blueprint as part of new site orientation
- Site provided suggested activities that reflect each area above [Blueprint Factors]
- FW Educators are educated in suggested activities that reflect each area above [Blueprint factors]
- FW supervisors are educated in specific assignments to enhance student learning

----------------------------------------------------------------------------------------------------------------------------

**Item 24**: Please describe in the space below specifically how your curriculum or courses have evolved due to use of the **Blueprint document**. (N=125)

Themes presented in the chart below emerged from the data and were used to code individual responses to this survey item. Responses from all but 12 of the respondents are represented below. Responses were omitted when they were not interpretable or when they indicated that the question was not applicable.

<table>
<thead>
<tr>
<th>Ways that curricula or courses evolved due to Blueprint</th>
<th>Frequency of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Blueprint had minimal or no impact</strong></td>
<td>27</td>
</tr>
</tbody>
</table>

Examples:

“was referred to during curriculum review, but . . . not user friendly for extensive use”

“In developing this new OTA program I consulted the Blueprint but actually used it minimally, other documents including the sample curriculum were much more helpful. The format of the blueprint was hard to follow and appeared repetitive.”

“The Model Curriculum for an OT Program document was helpful for comparison, and looking at the minimal ACOTE standards, but the blueprint was of very little help in designing the curriculum or courses.”

“we have minimally used the Blueprint and see little value in using it in the future.”
“This document has not been extensively used. It was reviewed by faculty. There was some confusion about how it could be implemented as part of the curriculum design. More detail about how it can be utilized with a sample curriculum under each of the sections would be helpful. If not a workshop regarding its use.”

“The faculty as a whole feels that this document is too limiting and therefore voted not to use it as a measure of our curricular objectives.”

**Blueprint contributed to general curriculum planning**

Subthemes with examples:

**Decisions regarding content to include in curriculum:**

“The blueprint document has contributed considerations as to what content is included in certain areas, to make sure a broad perspective is being presented. It has also helped the program identify areas of strength and weakness.”

“provides a guide and keeps our focus on what is most important for the students to know regarding our profession”

“We chose to keep all the existing pre-requisites-though we were encouraged to reduce English requirements, and sociology course. We chose to combine the OTA courses instead. We used the Blueprint as a reason to support some of the decisions as well as the ACOTE standards.”

“Focus has shifted from pathology to “occupation” and client, environment-centered discussion. Professional and interpersonal skills & behaviors have been given more weight in the teaching/learning process.”

“Increase in spirituality topics within the curriculum courses, increase in looking at the political factors that are affecting the practice of OT today, and increase in teaching about OT serving populations.”

**Organization of curriculum content:**

“shaped the organization of the threads in the OT curriculum”

**Process of curriculum development:**

“we use this document for curriculum design, mission, and then specific goals, and then finally courses”

“As a relatively new program we are realizing the importance of our alumni in further developing our curriculum and fieldwork opportunities.”
**Expansion of practice areas covered:**

“We address the basic entry level skills required for success, balance that with the needs of the therapeutic community needs, and using these skills to affect change in the community at large by encouraging service.”

“Our curriculum responds to the occupational needs of individuals in primary care, and in high risk communities.”

“The blueprint has helped us to explicitly develop course content directed at organizations and communities.”

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**Blueprint validated or led to minor adjustments in the existing curriculum**

Examples:

“the Blueprint has been helpful mostly/only in the area of curriculum design adjustments. We had a strong design due to working with a consultant and the Blueprint gave the faculty ideas revisions when we did our most recent update.”

“Our curriculum was already developed when the Blueprint document came out. We have consulted it when making changes.”

“Curriculum and course reviews have been ongoing prior to the Blueprint. The Blueprint may have validated our desired changes along with the evidence from fieldwork and networking with OT managers & clinicians.”

“The blueprint was a good resource. It is comprehensive enough to be a reminder of what we need to include in the curriculum. The blueprint was a useful tool but I can’t say that it totally altered the curriculum. I think that the ACOTE standards were more influential while going through the process of designing the courses.”

“If asked about our use of the Blueprint factors in our curriculum, my answer is “extensive”, but we do not refer to the Blueprint document. When the document was published it provided welcome support for our program tenets, curricular design, and educational philosophy. We wholeheartedly embrace the Blueprint document as a tool that should not only shape all OT programs, but OT practice as well.”

“It reinforced what we were already doing. It helped tie curricular threads together.”
### Other documents & resources influenced how curriculum/courses evolved

<table>
<thead>
<tr>
<th>21</th>
<th>Examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>“evolve based on ACOTE”</td>
<td></td>
</tr>
<tr>
<td>“I am unsure of the amount of influence the document has had on our curricula. At this point, I would say we follow the ACOTE Standards as a ‘blueprint.’”</td>
<td></td>
</tr>
<tr>
<td>“Blueprint is a reference list of items to remember to address. We are more concerned with the Standards.”</td>
<td></td>
</tr>
<tr>
<td>“Referred to it during self-study for ACOTE. Should probably use it more, though there is much to refer to in meeting ACOTE standards and it is yet another document to refer to.”</td>
<td></td>
</tr>
<tr>
<td>“We think the “Model Curriculum” is a better document to use for self-study and curriculum development. Don’t understand why “model curriculum” has not been more showcased at AOTA?”</td>
<td></td>
</tr>
</tbody>
</table>

### Too soon to know -- plan to use or beginning to use Blueprint

<table>
<thead>
<tr>
<th>12</th>
<th>Examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Currently using this &amp; other documents as we re-imagine our MOT program”</td>
<td></td>
</tr>
<tr>
<td>“We have not used the Blueprint extensively. As we move to the new ACOTE standards and revise our curriculum, the program will use the Blueprint to guide revisions.”</td>
<td></td>
</tr>
<tr>
<td>“It has not been used but will be used in the future.”</td>
<td></td>
</tr>
</tbody>
</table>

### Blueprint influenced planning for specific courses

<table>
<thead>
<tr>
<th>7</th>
<th>Examples:</th>
</tr>
</thead>
<tbody>
<tr>
<td>“utilize it when planning &amp; updating my courses”</td>
<td></td>
</tr>
<tr>
<td>“some changes in wording of objectives”</td>
<td></td>
</tr>
</tbody>
</table>
**Item 27:** What additional strategies do you think might be helpful to maximize the usefulness of the Blueprint document? Please list them below. (N=192)

Major Themes:

1. Specific strategies that will improve the use of the blueprint (See excerpts in the chart below).

2. The blueprint is not a useful tool (N=19). Excerpts:

   “I do not feel it is a relevant document “

   “Ultimately I think this document is unnecessary”

   “I do not think the association should spend further time money and resources on this document. I cannot think of any useful strategies.”

3. Lack of familiarity to be able to suggest a strategy & “Not sure” (N=18)

<table>
<thead>
<tr>
<th>Specific strategies that will improve the use of the blueprint</th>
<th>Frequency of responses with this theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integration with other documents pertaining to curriculum development, such as the ACOTE standards, OTPF, NBCOT etc.</td>
<td>32</td>
</tr>
</tbody>
</table>

Excerpts:

“I think the Blueprint is a good document as it is. I believe that there are too many documents related to program content and this creates confusion. Integrating the blueprint concepts with ACOTE standards would be most effective since programs must meet the ACOTE standards.”

“Any integration with the Framework and NBCOT testing would be very valuable to encourage the use of the Blueprint. Integrate into ACOTE standards and self-study reporting for accreditation.”

“I was introduced to the blueprint at conference a few years ago. The definitions are helpful, but I am uncertain how this will dovetail along with ACOTE standards and the OTPF in a practical applied fashion. I would suggest that if this document is going to be useful that its purpose and utility is clearly identified in terms of how it is supplements/distinguishes itself from the ACOTE and OTPF. That remains unclear to me”

| Provide specific application examples that reflect the potential use of the Blueprint especially in curriculum and program development | 24 |

Excerpts:
“It is a good document but also very vague. Concrete examples would be helpful”

“provide examples as well as provide a way to demonstrate the synthesis of the information into a more systematic model”

“Curriculum Development workshops/conference for programs”

### Need to Disseminate and open up a discussion with educators and practitioners on the use of the Blueprint

Excerpts:

“Needs to be more widely publicized for input. Perhaps present as a bill for discussion at the RA”

“Honestly, I knew this existed, but doing this survey was a wonderful reminder to me that this document exists and I should remember to pay attention to it. Another way to market this is at the Program Directors Meetings or SharePoint”

“repeated presentation at state and AOTA conference”

### Provide evidence of effectiveness of its use

Example:

“Additional data on how the Blueprint has supported programs with examples that can illustrate the usefulness of the Blueprint.”

“Doing a pilot study if this has not already been done.”

“Share how document is being used in "best practice" situations - workshops at program director meetings; faculty/educator workshops; FW educator workshops; etc.”

### Clarity of purpose and further development

“explain its purpose”

“I think instead of thinking of this tool as a finished product, more effort could be put into attempting to achieve consensus on its content. At this time there are limitations and the tool has not been developed to the point of which it can be a stand alone document. It would be beneficial to gather the thoughts of forward thinking educators and theorist inside and outside the profession to continue to develop this tool. Instead of asking questions such as - should content from the blueprint be included in other existing documents - such as the OT model curriculum, you may want to ask - how can we better include information from other sources into the blueprint”

| Need to Disseminate and open up a discussion with educators and practitioners on the use of the Blueprint | 20 |
| Provide evidence of effectiveness of its use | 10 |
| Clarity of purpose and further development | 10 |
“I am not really sure what the blueprint is for, despite reading it. Its purpose isn't clear to me”

<table>
<thead>
<tr>
<th><strong>Use as a resource for programs and faulty</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Excerpts:</td>
</tr>
<tr>
<td>“It might be helpful for developing programs.”</td>
</tr>
<tr>
<td>“provide resources to instructors and program directors to enhance course delivery”</td>
</tr>
<tr>
<td>“Reference the Blueprint in conference planning”</td>
</tr>
<tr>
<td>8</td>
</tr>
</tbody>
</table>

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**Item 28: What do you perceive as drawbacks that limit the use of the Blueprint document?**
(N=546)

<table>
<thead>
<tr>
<th>Theme</th>
<th>Frequency of responses with this theme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lack of congruence</strong> with other documents (Just one more tool, need an overarching inclusive framework)</td>
<td></td>
</tr>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“Since it is currently not integrated with ACOTE standards, OTPF, and NBCOT, it is perceived as another hoop to jump through.”</td>
<td></td>
</tr>
<tr>
<td>“AOTA seems to be developing quite a variety of documents (as your survey list has supplied) and we need these to be more streamlined and assure that the content is also aligning with the NBCOT exam content and our vision.”</td>
<td></td>
</tr>
<tr>
<td>“The language is not congruent with other documents widely used in OT programs by program directors such as the OTPF and the ACOTE Standards.”</td>
<td></td>
</tr>
<tr>
<td>96</td>
<td></td>
</tr>
<tr>
<td><strong>Not related to ACOTE/NBCOT.</strong> No time to focus on document (less important than required documents) Irrelevant to ACOTE assessment measures, Not helpful for established programs</td>
<td></td>
</tr>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“It isn’t what we are judged on. We spend a lot more time being focused on the ACOTE standards because our accreditation is required and NBCOT ideas because students want to pass the exam first time and this one major way students evaluate which school to apply to”</td>
<td></td>
</tr>
<tr>
<td>94</td>
<td></td>
</tr>
</tbody>
</table>
"Not sure this document has any utility. The ACOTE standards are far more influential and vital to educational design."

**Inability to operationalize content** (descriptive not directive, vague, too broad)

**Example:**

“The concepts in the Blueprint lack a context. The list of skills and areas of practice seem redundant within each category, indicating that perhaps the format is not useful. I am left wondering how to use this document and what it adds to curriculum development/revision. If the purpose of the document is to support education, then blending it with the OT Practice Framework does not make sense.”

“Understanding what it is and how to use it. -Language - it seems to add another layer of complication to our already too complicated way of saying what we do. -Lack of clarity”

**Lack of awareness**

**Example:**

“Most people do not know the Blueprint exists. The people trying to get the Blueprint written had trouble making people understand why it was needed and this problem remains. The ACOTE standards are very comprehensive and this is what programs are measured by. Also there is a public process for input on the standards and they are updated on a specified timeline. The blueprint seemed to be pushed by powerful people in the OT education community and it is not a document that others have had input into”

“I am unaware of the Blueprint and cannot comment on its usefulness because of my ignorance.”

**Lead to over regulation, Too detailed, will lead to prescriptive programs**

**Example:**

“a mechanism to decrease academic freedom.”

“It does not address the uniqueness of every area in the country. A blueprint is a recipe for disaster. Unless you want to make the standards a prescriptive recipe for all programs to follow, then do not force this on program directors.”

**No training** available regarding its use.

**Example:**

“It is a structural tool. Could use more guidance in how to use the tool or
implement strategies from it.”

“Lack of education on the document and its purpose”

<table>
<thead>
<tr>
<th>Lack of buy in from outside stakeholders (faculty, institutions, practitioners)</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“Time to review it. [Teaching] loads and time allotted for faculty at the OTA level limits focus on these types of endeavors unless needed for a particular purpose.”</td>
<td></td>
</tr>
<tr>
<td>“Getting this information to clinicians to support this in education.”</td>
<td></td>
</tr>
<tr>
<td>“I see the Blueprint as a valuable tool to drive the future of OT education. There is some disagreement on our faculty and while I have worked to draw attention to the Blueprint, senior faculty are resistant to having a discussion on what this impact may be or even examining the document”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disagree with Philosophical Point of View</th>
<th>16</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“Our new curriculum themes include things like context and communities, therapeutic processes, human capacity for action as well as ethics, justice, and care (this is a work in progress but obviously didn't work with the blueprint document. I think we just don't frame the practice of OT in the same way.”</td>
<td></td>
</tr>
<tr>
<td>“It omits the intellectual history and philosophical bases of the content it recommends. It is a content-driven vs. learning-driven document. Learning the intersections among the topics is to me, the most important issue in learning OT. The intersections are not visible or explicit enough in the document. Related to the above, practice that addresses the Centennial Vision requires assimilation across the topics of the Blueprint. The Blueprint runs the risk of keeping content areas in silos, accomplishing little to advance how students view and use knowledge in practice.”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Needs to be specific to level of degree (Separate OT/OTA documents, only applies to OTR)</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“Blends together all levels of OT education (i.e., difficult to ascertain scope or specifics for OTA education).”</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Only available in English</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example:</td>
<td></td>
</tr>
<tr>
<td>“Spanish Publication”</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B
Quantitative Analyses of On-Line Survey Ratings

1. What is your current position in the entry-level occupational therapy program that you will address in this survey?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program director</td>
<td>34.0%</td>
<td>262</td>
</tr>
<tr>
<td>Full-time faculty member</td>
<td>51.4%</td>
<td>396</td>
</tr>
<tr>
<td>Part-time or adjunct faculty member</td>
<td>11.7%</td>
<td>90</td>
</tr>
<tr>
<td>I am not a faculty member or program director in an entry-level OT program</td>
<td>2.9%</td>
<td>22</td>
</tr>
</tbody>
</table>

2. This survey will reflect which one of the following programs?
2. This survey will reflect which one of the following programs?

<table>
<thead>
<tr>
<th>Program</th>
<th>Response</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate degree or certificate in occupational therapy (OTA)</td>
<td>34.2%</td>
<td>249</td>
</tr>
<tr>
<td>Master’s degree in occupational therapy (OT)</td>
<td>62.0%</td>
<td>451</td>
</tr>
<tr>
<td>Doctor of Occupational Therapy (OT)</td>
<td>3.8%</td>
<td>28</td>
</tr>
</tbody>
</table>

3. What is your current position in the entry-level occupational therapy program that you will address in this survey?

<table>
<thead>
<tr>
<th>Program</th>
<th>Response</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program director</td>
<td>34.8%</td>
<td>253</td>
</tr>
</tbody>
</table>
3. What is your current position in the entry-level occupational therapy program that you will address in this survey?

<table>
<thead>
<tr>
<th>Position</th>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full-time faculty member</td>
<td>53.0%</td>
<td>386</td>
</tr>
<tr>
<td>Part-time or adjunct faculty member</td>
<td>11.7%</td>
<td>85</td>
</tr>
<tr>
<td>I am not a faculty member or program director</td>
<td>0.5%</td>
<td>4</td>
</tr>
</tbody>
</table>

4. Before receiving or hearing of this survey, were you already aware of the existence of the *Blueprint for Entry Level Education* developed by AOTA?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>65.9%</td>
<td>475</td>
</tr>
<tr>
<td>No</td>
<td>34.1%</td>
<td>246</td>
</tr>
</tbody>
</table>

5. I see the connection between the *Blueprint for Entry Level Education* and preparing future occupational therapy practitioners.
5. I see the connection between the *Blueprint for Entry Level Education* and preparing future occupational therapy practitioners.

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>82.2%</td>
<td>373</td>
</tr>
<tr>
<td>Disagree</td>
<td>5.3%</td>
<td>24</td>
</tr>
<tr>
<td>Not Sure</td>
<td>12.6%</td>
<td>57</td>
</tr>
</tbody>
</table>

6. I see the *Blueprint for Entry Level Education* as an essential document for entry level education that will move the occupational therapy profession toward its Centennial Vision.
6. I see the *Blueprint for Entry Level Education* as an essential document for entry level education that will move the occupational therapy profession toward its Centennial Vision.

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>50.2%</td>
<td>228</td>
</tr>
<tr>
<td>Disagree</td>
<td>12.8%</td>
<td>58</td>
</tr>
<tr>
<td>Not Sure</td>
<td>37.0%</td>
<td>168</td>
</tr>
</tbody>
</table>

7. In your experience, has the *Blueprint for Entry Level Education* influenced development of your entry-level curriculum to any extent?

- **answered question**: 450
- **skipped question**: 320

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>18.4%</td>
<td>83</td>
</tr>
<tr>
<td>Minimally</td>
<td>31.3%</td>
<td>141</td>
</tr>
<tr>
<td>Somewhat</td>
<td>33.3%</td>
<td>150</td>
</tr>
</tbody>
</table>
7. In your experience, has the *Blueprint for Entry Level Education* influenced development of your entry-level curriculum to any extent?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quite a bit</td>
<td>14.0%</td>
<td>63</td>
</tr>
<tr>
<td>Extensively</td>
<td>2.9%</td>
<td>13</td>
</tr>
</tbody>
</table>

8. To what extent does your program use the Blueprint *Factors* to develop the **curriculum design** (i.e., the overall structure and sequencing of content across the curriculum)?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>9.3%</td>
<td>34</td>
</tr>
<tr>
<td>Minimally</td>
<td>27.2%</td>
<td>99</td>
</tr>
<tr>
<td>Somewhat</td>
<td><strong>35.2%</strong></td>
<td><strong>128</strong></td>
</tr>
<tr>
<td>Quite a bit</td>
<td>17.6%</td>
<td>64</td>
</tr>
<tr>
<td>Extensively</td>
<td>4.1%</td>
<td>15</td>
</tr>
<tr>
<td>I don't know</td>
<td>6.6%</td>
<td>24</td>
</tr>
</tbody>
</table>
9. Which of the following Blueprint Factors has your program used in curriculum design (i.e., the overall structure and sequencing of content across the curriculum)? Check all that apply

<table>
<thead>
<tr>
<th>Response</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person-centered</td>
<td>66.8%</td>
</tr>
<tr>
<td>Environment-centered</td>
<td>52.3%</td>
</tr>
<tr>
<td>Occupation-centered</td>
<td>86.5%</td>
</tr>
<tr>
<td>Professional and interpersonal</td>
<td>58.0%</td>
</tr>
<tr>
<td>Not sure</td>
<td>9.3%</td>
</tr>
</tbody>
</table>

10. Please describe or provide an example of how Blueprint Factors have been used in curriculum design of your program.
10. Please describe or provide an example of how Blueprint Factors have been used in curriculum design of your program.

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>17.4%</td>
<td>60</td>
</tr>
<tr>
<td>Minimally</td>
<td>32.6%</td>
<td>112</td>
</tr>
<tr>
<td>Somewhat</td>
<td>28.8%</td>
<td>99</td>
</tr>
</tbody>
</table>

11. To what extent does your program use the Blueprint Factors to develop individual course descriptions, objectives, and/or content?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>17.4%</td>
<td>60</td>
</tr>
<tr>
<td>Minimally</td>
<td>32.6%</td>
<td>112</td>
</tr>
<tr>
<td>Somewhat</td>
<td>28.8%</td>
<td>99</td>
</tr>
</tbody>
</table>
11. To what extent does your program use the Blueprint Factors to develop individual course descriptions, objectives, and/or content?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quite a bit</td>
<td>11.3%</td>
<td>39</td>
</tr>
<tr>
<td>Extensively</td>
<td>2.6%</td>
<td>9</td>
</tr>
<tr>
<td>I don't know</td>
<td>7.3%</td>
<td>25</td>
</tr>
</tbody>
</table>

12. Which of the following Blueprint Factors has your program used to develop individual course descriptions, objectives, and/or content? Check all that apply.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person-centered</td>
<td>76.6%</td>
<td>105</td>
</tr>
<tr>
<td>Environment-centered</td>
<td>62.8%</td>
<td>86</td>
</tr>
<tr>
<td>Occupation-centered</td>
<td>89.8%</td>
<td>123</td>
</tr>
<tr>
<td>Professional and interpersonal</td>
<td>65.0%</td>
<td>89</td>
</tr>
<tr>
<td>Not sure</td>
<td>5.8%</td>
<td>8</td>
</tr>
</tbody>
</table>
13. Please describe or provide an example of how Blueprint Factors have been used to develop individual course descriptions, objectives, and/or content in your program.

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>74</td>
</tr>
<tr>
<td>Minimally</td>
<td>111</td>
</tr>
</tbody>
</table>

14. To what extent does your program use the Blueprint to create specific course learning activities and/or assessments?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>22.2%</td>
<td>74</td>
</tr>
<tr>
<td>Minimally</td>
<td>33.3%</td>
<td>111</td>
</tr>
</tbody>
</table>
14. To what extent does your program use the Blueprint to **create specific course learning activities and/or assessments**?

<table>
<thead>
<tr>
<th>Extent</th>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somewhat</td>
<td>27.0%</td>
<td>90</td>
</tr>
<tr>
<td>Quite a bit</td>
<td>7.2%</td>
<td>24</td>
</tr>
<tr>
<td>Extensively</td>
<td>1.8%</td>
<td>6</td>
</tr>
<tr>
<td>I don't know</td>
<td>8.4%</td>
<td>28</td>
</tr>
</tbody>
</table>

15. For which of the following concerns is the Blueprint useful in **creating specific course learning activities and/or assessments**? Check all that apply.

<table>
<thead>
<tr>
<th>Concern</th>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student knowledge of key topics and concepts</td>
<td>72.2%</td>
<td>83</td>
</tr>
<tr>
<td>Student understanding of the science that underpins practice</td>
<td>58.3%</td>
<td>67</td>
</tr>
<tr>
<td>Student development of practice skills</td>
<td><strong>73.0%</strong></td>
<td><strong>84</strong></td>
</tr>
</tbody>
</table>
15. For which of the following concerns is the Blueprint useful in creating specific course learning activities and/or assessments? Check all that apply.

<table>
<thead>
<tr>
<th>Concern</th>
<th>Percentage</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student familiarity with areas of practice in occupational therapy</td>
<td>68.7%</td>
<td>79</td>
</tr>
<tr>
<td>Not sure</td>
<td>8.7%</td>
<td>10</td>
</tr>
</tbody>
</table>

16. Please describe or provide an example of how Blueprint Factors have been used to create specific course learning activities and/or assessments in your program.

17. To what extent does your program use Blueprint Factors to develop Level I fieldwork opportunities?

   answered question 324
17. To what extent does your program use Blueprint *Factors* to develop Level I fieldwork opportunities?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>22.8%</td>
<td>74</td>
</tr>
<tr>
<td>Minimally</td>
<td>32.1%</td>
<td>104</td>
</tr>
<tr>
<td>Somewhat</td>
<td>17.6%</td>
<td>57</td>
</tr>
<tr>
<td>Quite a bit</td>
<td>6.5%</td>
<td>21</td>
</tr>
<tr>
<td>Extensively</td>
<td>2.2%</td>
<td>7</td>
</tr>
<tr>
<td>I don't know</td>
<td>18.8%</td>
<td>61</td>
</tr>
</tbody>
</table>

18. Which of the following Blueprint *Factors* has your program used to develop Level I fieldwork opportunities? Check all that apply.

...
18. Which of the following Blueprint Factors has your program used to develop Level I fieldwork opportunities? Check all that apply.

<table>
<thead>
<tr>
<th>Blueprint Factor</th>
<th>Response Percent</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person-centered</td>
<td>66.3%</td>
<td>55</td>
</tr>
<tr>
<td>Environment-centered</td>
<td>63.9%</td>
<td>53</td>
</tr>
<tr>
<td>Occupation-centered</td>
<td>75.9%</td>
<td>63</td>
</tr>
<tr>
<td>Professional and interpersonal</td>
<td>67.5%</td>
<td>56</td>
</tr>
<tr>
<td>Not sure</td>
<td>7.2%</td>
<td>6</td>
</tr>
</tbody>
</table>

19. Please describe or provide an example of how Blueprint Factors have been used to develop Level I fieldwork opportunities in your program.
20. To what extent does your program use Blueprint *Factors* to **develop Level II fieldwork opportunities**?

<table>
<thead>
<tr>
<th>Response</th>
<th>Percent</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>24.2%</td>
<td>78</td>
</tr>
<tr>
<td>Minimally</td>
<td>31.7%</td>
<td>102</td>
</tr>
<tr>
<td>Somewhat</td>
<td>14.6%</td>
<td>47</td>
</tr>
<tr>
<td>Quite a bit</td>
<td>7.5%</td>
<td>24</td>
</tr>
<tr>
<td>Extensively</td>
<td>1.6%</td>
<td>5</td>
</tr>
<tr>
<td>I don't know</td>
<td>20.5%</td>
<td>66</td>
</tr>
</tbody>
</table>

21. Which of the following Blueprint *Factors* has your program used to **develop Level II fieldwork opportunities**? Check all that apply.
21. Which of the following Blueprint Factors has your program used to develop Level II fieldwork opportunities? Check all that apply.

| Person-centered         | 79.2% | 57 |
| Environment-centered   | 69.4% | 50 |
| Occupation-centered    | 83.3% | 60 |
| Professional and interpersonal | 77.8% | 56 |
| Not sure               | 6.9%  | 5  |

22. Please describe or provide an example of how Blueprint Factors have been used to develop Level II fieldwork opportunities in your program.

answered question 33

skipped question 737
22. Please describe or provide an example of how Blueprint Factors have been used to develop Level II fieldwork opportunities in your program.

23. To what extent does your program use the Blueprint to:

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>Minimally</th>
<th>Somewhat</th>
<th>Quite a bit</th>
<th>Extensively</th>
<th>Don't Know</th>
<th>Rating</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify appropriate pre-requisites, including courses or requirements outside the OT program.</td>
<td>22.4% (67)</td>
<td>34.1% (102)</td>
<td>22.1% (66)</td>
<td>9.4% (28)</td>
<td>2.0% (6)</td>
<td>10.0% (30)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify societal needs that the</td>
<td>13.4% (40)</td>
<td>33.4% (100)</td>
<td>28.4% (85)</td>
<td>12.4% (37)</td>
<td>3.7% (11)</td>
<td>8.7% (26)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
23. To what extent does your program use the *Blueprint* to:

<table>
<thead>
<tr>
<th>Action</th>
<th>14.7% (44)</th>
<th>29.1% (87)</th>
<th>23.4% (70)</th>
<th>20.4% (61)</th>
<th>5.7% (17)</th>
<th>6.7% (20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guide the professional development of students.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify competencies needed when recruiting new faculty.</td>
<td>28.8% (86)</td>
<td>27.1% (81)</td>
<td>17.4% (52)</td>
<td>9.0% (27)</td>
<td>3.3% (10)</td>
<td>14.4% (43)</td>
</tr>
<tr>
<td>Develop continuing education initiatives for alumni and community partners.</td>
<td>32.8% (98)</td>
<td>24.7% (74)</td>
<td>16.4% (49)</td>
<td>10.7% (32)</td>
<td>2.0% (6)</td>
<td>13.4% (40)</td>
</tr>
</tbody>
</table>

24. Please describe in the space below specifically how your curriculum or courses have evolved due to use of the *Blueprint* document.
24. Please describe in the space below specifically how your curriculum or courses have evolved due to use of the *Blueprint* document.

25. For each statement below, indicate the extent to which you find the following document helpful in the development or revision of the curriculum and individual courses.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Rating</th>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>International Classification of Functioning (ICF)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Not used or not at all helpful</td>
<td>15.4% (89)</td>
</tr>
<tr>
<td></td>
<td>Minimally helpful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Somewhat helpful</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Very helpful</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational Therapy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.2%</td>
</tr>
</tbody>
</table>

*International Classification of Functioning (ICF)*

<table>
<thead>
<tr>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>125</td>
</tr>
</tbody>
</table>

*Occupational Therapy*

<table>
<thead>
<tr>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>578</td>
</tr>
</tbody>
</table>

*Answered question*

<table>
<thead>
<tr>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>578</td>
</tr>
</tbody>
</table>

*Skipped question*

<table>
<thead>
<tr>
<th>Response Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>192</td>
</tr>
</tbody>
</table>

*Survey Question 24 and 25 Results*
25. For each statement below, indicate the extent to which you find the following document helpful in the development or revision of the curriculum and individual courses.

<table>
<thead>
<tr>
<th>Document</th>
<th>1.9%</th>
<th>5.0%</th>
<th>15.9%</th>
<th>77.2%</th>
<th>3.68</th>
<th>578</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practice Framework (OTPF)</td>
<td>(13)</td>
<td>(131)</td>
<td>(415)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACOTE Standards</td>
<td>1.9%</td>
<td>5.0%</td>
<td>15.9%</td>
<td>77.2%</td>
<td>3.68</td>
<td>578</td>
</tr>
<tr>
<td>Model Curriculum for OT or OTA Programs (AOTA document)</td>
<td>19.0%</td>
<td>25.4%</td>
<td>34.8%</td>
<td>20.8%</td>
<td>2.57</td>
<td>578</td>
</tr>
<tr>
<td>Blueprint for Entry Level Education (AOTA document)</td>
<td>29.1%</td>
<td>33.0%</td>
<td>27.2%</td>
<td>10.7%</td>
<td>2.20</td>
<td>578</td>
</tr>
<tr>
<td>NBCOT exam results</td>
<td>6.9%</td>
<td>15.4%</td>
<td>41.3%</td>
<td>36.3%</td>
<td>3.07</td>
<td>578</td>
</tr>
<tr>
<td>AOTA Centennial Vision</td>
<td>7.4%</td>
<td>24.2%</td>
<td>42.2%</td>
<td>26.1%</td>
<td>2.87</td>
<td>578</td>
</tr>
<tr>
<td>Healthy People 2020</td>
<td>24.7%</td>
<td>27.5%</td>
<td>35.3%</td>
<td>12.5%</td>
<td>2.35</td>
<td>578</td>
</tr>
<tr>
<td>Centers for Disease Control &amp; Prevention (CDC.gov)</td>
<td>25.1%</td>
<td>34.1%</td>
<td>32.2%</td>
<td>8.7%</td>
<td>2.24</td>
<td>578</td>
</tr>
<tr>
<td>AOTA fieldwork evaluation form</td>
<td>5.7%</td>
<td>20.9%</td>
<td>40.5%</td>
<td>32.9%</td>
<td>3.01</td>
<td>578</td>
</tr>
<tr>
<td>Research Priorities for Occupational Therapy (AOTF document)</td>
<td>28.4%</td>
<td>34.9%</td>
<td>28.2%</td>
<td>8.5%</td>
<td>2.17</td>
<td>578</td>
</tr>
<tr>
<td>Research priorities of</td>
<td>36.9%</td>
<td>38.2%</td>
<td>18.2%</td>
<td>6.7%</td>
<td>1.95</td>
<td>578</td>
</tr>
</tbody>
</table>
25. For each statement below, indicate the extent to which you find the following document helpful in the development or revision of the curriculum and individual courses.

<table>
<thead>
<tr>
<th>government agencies</th>
<th>(213)</th>
<th>(221)</th>
<th>(105)</th>
<th>(39)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources on models of practice or frames of reference</td>
<td>7.6% (44)</td>
<td>22.0% (127)</td>
<td><strong>39.8% (230)</strong></td>
<td>30.6% (177)</td>
</tr>
<tr>
<td>Other scholarly resources</td>
<td>9.9% (57)</td>
<td>22.8% (132)</td>
<td><strong>43.6% (252)</strong></td>
<td>23.7% (137)</td>
</tr>
</tbody>
</table>

26. Do you recommend the following strategies to maximize the usefulness of the *Blueprint* document?

| Integrate into ACOTE standards | 69.8% (381) | 10.4% (57) | 19.8% (108) | 1.50 | 546 |
| Integrate with the Model Curriculum | 59.2% (323) | 10.1% (55) | 30.8% (168) | 1.72 | 546 |
26. Do you recommend the following strategies to maximize the usefulness of the *Blueprint* document?

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Recommendation %</th>
<th>Yes (N)</th>
<th>No (N)</th>
<th>Strongly Disagree (N)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Integrate with the <em>Occupational Therapy Practice Framework: Domain and Process</em></td>
<td>72.3% (395)</td>
<td>11.0% (60)</td>
<td>16.7% (91)</td>
<td>1.44</td>
<td>546</td>
</tr>
<tr>
<td>Integrate with the AOTA Level II Fieldwork Performance Evaluation tool</td>
<td>59.9% (327)</td>
<td>13.4% (73)</td>
<td>26.7% (146)</td>
<td>1.67</td>
<td>546</td>
</tr>
<tr>
<td>Represent <em>Blueprint</em> content on the NBCOT exam</td>
<td>38.6% (211)</td>
<td>24.7% (135)</td>
<td>36.6% (200)</td>
<td>1.98</td>
<td>546</td>
</tr>
<tr>
<td>Revise into a resource guide with concrete examples of applications that align <em>Blueprint</em> content with ACOTE Standards, Model Curriculum, OTPF, and/or AOTA Level II FW Performance Evaluation</td>
<td>82.2% (449)</td>
<td>5.7% (31)</td>
<td>12.1% (66)</td>
<td>1.30</td>
<td>546</td>
</tr>
</tbody>
</table>

27. What additional strategies do you think might be helpful to maximize the usefulness of the *Blueprint* document. Please list them below.
27. What additional strategies do you think might be helpful to maximize the usefulness of the *Blueprint* document. Please list them below.

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

28. What do you perceive as drawbacks that limit the use of the *Blueprint* document?

- **answered question**

| 546 |

- **skipped question**

| 224 |
Report to Ad Hoc Committee for Future of OT Education  
Topic: Faculty Shortages

Committee members:
Ada Boone Hoerl, MA, COTA/L; Jody Bortone, Ed.D., OT/L; Joanne Foss, PhD, OTR/L, and Janet Jedlicka PhD, OTR/L, FAOTA

Committee Charge:

1. How do we identify and develop a model to put OT / OTA students on a career track for future roles in academia?

2. What are the best practices and what can be learned from other professions?

The committee met via conference call on 3 separate occasions, information was researched and shared among the committee. The group focused on models and targeted initiatives to increase the number of potential educators, as well as qualified researchers. Both will be needed to meet the dual demands of developing evidence to support intervention and providing education for all occupational therapy professionals. Cultural issues of the profession and historical ways of doing things were discussed and reviewed in terms of the impact of barriers and facilitators in the implementation of new initiatives. Based on the research of best practices from other professions, we are proposing three broad areas for consideration by the task force to begin to address the faculty shortage at all educational levels.

1. Development of a Center for Educational Excellence as a collaborative effort between AOTA and AOTF. This center could provide resources for new and experienced educators related to curriculum, pedagogy, the scholarship of teaching and cutting edge educational research.

The Center for Educational Excellence could be responsible for:

a. Dissemination of educational research and practice regarding pedagogy, curriculum, and faculty development.

b. Facilitation of faculty professional development at all levels of occupational therapy and occupational therapy assistant education across the career continuum. The educational continuum spans student to faculty to program director to senior researcher.
c. Provision of a venue for sharing and publishing of occupational therapy educational research. The committee supports the development of an online journal devoted to best practices in education and career preparation for faculty occupational therapy educators and researchers.

2. **Development of an infrastructure to support education as a recognized practice area in the occupational therapy profession.** This infrastructure is needed to create a pipeline of future educators across the continuum.

   a. Development of specific approaches to increase the visibility of education as a practice area and increase the understanding of the possible roles of an educator. Strategies to address this might include showcasing younger educators who are making a difference in varied educational settings.

   b. Development of white papers that specifically address the qualifications of occupational therapy faculty at technical, masters, and research universities. Information could include guidelines on the traditional missions of various institutions, and responsibilities and educational preparation of faculty.

   c. Development of a system to identify, mentor, and support potential educators early in their occupational therapy assistant or occupational therapy programs; facilitating transitions for students with specific interests or goals. Support and guidance for faculty could be provided at entry and transition points in their careers.

   d. In addition it is recommended that the profession make a concerted effort to collaborate with other qualified professions to support the education and research needs of the profession. For example development of dual degree programs in collaboration with Masters or PhD programs in the basic sciences (Examples; neuroscience, public health, etc.) Students in the early stages of their graduate programs may be attracted to occupational therapy, providing additional opportunities for career advancement and increasing the expertise of best practices in education.

3. **Strengthening the accreditation standards for occupational therapy education to include specific standards that address the role of education in all aspects of practice at both the occupational therapy and occupational therapy assistant levels.**

   a. Principles of teaching and learning are valuable contributors to the practice of occupational therapy in a wide variety of settings. For example therapists teach compensatory skills, basic skill of daily living, develop and present home programs, and provide consultation to community agencies.
A stronger statement explicit in the preamble would enhance the role of teaching and learning in best practices.

b. In addition specific standards related to principles of education should be developed in the Section B of the content standards and strengthened in the intervention and leadership and management standards. This could result in a stronger understanding of the roles and responsibilities of occupational therapy educators.

Respectfully submitted,

Janet Jedlicka PhD, OTR/L, FAOTA (Task Force Chair); Ada Boone Hoerl, MA, COTA/L; Jody Bortone, EdD, OT/L and Joanne Foss, PhD, OTR/L.
Addendum: 2008 Ad Hoc Report

American Occupational Therapy Association
Ad Hoc Committee to Address Faculty Shortages

Final Report to the Board of Directors
August 2008

Charge/Issue:

The committee was charged by the President to develop recommendations to address current and anticipated faculty shortages as senior faculty at many educational institutions approach retirement. In order for the Centennial Vision of the profession to be achieved, academic programs must be able to produce a diverse and prepared workforce ready to address society’s changing needs. The available data indicates that there is currently a vacancy rate exceeding 8% among full-time faculty members in occupational therapy (OT) educational programs and 6% among full-time faculty members in occupational therapy assistant (OTA) educational programs (AOTA, 2008). In addition, the profession is experiencing a growth in new program applications at the same time that many of our experienced faculty members are approaching retirement.

Specifically, the Committee was asked to address the following two key issues:

- How can the profession develop a pool of qualified faculty members to fill the existing and projected needs?
- How can the profession plan for the future to ensure that the needs of the profession for qualified faculty and academic leaders are being met on an ongoing basis?

The committee consisted of 6 members, including program directors and experienced faculty members across the country, and represented both OT and OTA educational programs. The committee met regularly from February through August 2008 through teleconferencing and email communications. In order to fully address the charge, the committee engaged in thorough discussion, reviewed current literature, and networked with other program directors and faculty to identify issues affecting the current shortage and identify appropriate recommendations.

To identify the issues affecting the faculty shortages, the following areas were researched: the 2007 AOTA Faculty Workforce Survey (AOTA, 2007), issues related to faculty shortages in other professions, barriers to faculty development, issues related to recruitment and retention of faculty, resources to support faculty development, and current strategies being implemented to address the current shortages. The committee recognized and wants to stress that in order to effectively address the current and anticipated future shortages in faculty, it is critical that all stakeholders accept responsibility and work collaboratively to increase the pool of qualified faculty candidates and support these individuals as they pursue a career in academia. These
stakeholders included AOTA leadership, program directors and current faculty members, fieldwork educators, and clinicians.

**Ad Hoc Committee Members:**

Janet S. Jedlicka, PhD, OTR/L (Chair) (University of North Dakota-OT, ND)
Rebecca R. Bahnke, MHS, OTR/L (Parkland College-OTA, IL)
Jody Bortone, EdD, OTR/L (Sacred Heart University-OT, CT)
Tia Hughes, MBA, OTR/L (Florida College of Health Sciences-OTA, FL)
Kathleen Matuska, MPH, OTR/L (College of Saint Catherine-OT, MN)
Christy L.A. Nelson, PhD, OTR/L FAOTA (University of Findlay-OT, OH)
Neil Harvison, PhD, OTR/L (AOTA Liaison)

**Key Recommendations:**

Based on the literature review, discussions with other program directors and among the ad hoc committee, the following key recommendations are proposed. The committee developed strategies for the short range (2008-2010), middle range (2010-2012), and long range (2012-2017). Three key areas were identified: (1) faculty recruitment; (2) education; (3) mentoring & support. The table summarizing these recommendations can be found in the appendix. The top four recommendations are summarized here.

**Recommendation 1:** AOTA and the profession recognize academia as a practice area and **develop recruitment initiatives** to encourage individuals to enter academia as a career choice. In addition, it is recommended that the Association include academia as a practice area when revising existing recruitment and promotional materials.

It is recommended that the Association develop recruitment materials for OT and OTA practitioners at all stages of the career span to consider a transition to education……

“**Behind every great occupational therapy practitioner is a great educator**”. Corporate sponsorships for this marketing campaign could be sought from potential employers of graduates. This has been a successful model in other professions such as nursing. Finally, the AOTA membership should be made aware of the faculty shortage through the marketing materials, which may heighten interest from OT practitioners.

**Recommendation 2:** AOTA sponsor **continuing education options** for clinicians and existing faculty member interested in further exploring academia. It is recommended that a committee be appointed to develop a comprehensive continuing education plan including a detailed analysis of projected costs. This could begin with promoting articles and papers in existing journals and at conference to gauge the level of interest before investing in more costly continuing education options.

A key theme that emerged in the literature review and discussions with various stakeholders was the need for continuing education and opportunities for interested parties at all levels regarding the faculty role. This included OT practitioners interested in becoming fieldwork educators and full-time faculty members and new faculty members.
interested in further developing skills/resources for teaching and research. Opportunities to network with clinicians to explore the possibility for a career in academia, including exploration of career/life goals, exploration of how a faculty position will potentially match, exploration of opportunities afforded with advanced academic degrees. The committee is recommending that a concerted effort be placed on this area by sponsoring faculty development workshops at AOTA Conference, round table discussions, designing self-study resources, and online course work for individuals interested in exploring the faculty role.

**Recommendation 3:** Develop *mechanisms such as social networks for mentoring and supporting* emerging academic leaders and faculty in the profession.

The committee is recommending that AOTA provide a mechanism for mentoring/supporting emerging leaders and individuals interested in exploring opportunities for a career in academia. This could be achieved by continuing to partner with AOTF to develop professional development circles similar to those recently established for researchers in the profession and program directors. The proposed online social networks and opportunities at conference could also provide a useful resource to achieve this goal and provide opportunities for faculty to develop relationships with other faculty members and share resources related to course development, teaching strategies, and assessment methods.

**Recommendation 4:** Develop a *resource site* for sharing information (and other technological supports).

The resource site could include posting of faculty vacancies, opportunities for post-doctoral research opportunities, and teaching fellowships. In addition, teaching and pedagogical resources such as syllabi, course materials, curriculum designs, model curriculum could be included.

**Supporting information and projected costs:**

**Recommendation 1: Develop marketing materials.**

- Charge staff to develop recruitment materials to be distributed among OT practitioners that highlight the faculty shortages and promote academic careers.
  - Initial staff hours to develop *proposal for scope of recruitment initiatives* = 24 hrs. @ $60/hr. = $1,440.
  - **Note:** Final costs are dependent on the scope of the recruitment initiatives developed in the staff proposal (e.g., in-house flyers versus brochure versus DVD, etc.) The Committee acknowledges that this may be a long-term plan based on the Association’s marketing budget and established priorities.
- Charge staff to investigate potential corporate sponsorship of a recruitment campaign for educators. The Committee noted the successful Johnson & Johnson Campaign for nursing educators.
Recommendation 2: Committee to develop a comprehensive continuing education program plan that identifies current needs and projected costs.

- Form a committee of 6 volunteer members to develop a comprehensive continuing education program plan. The committee will meet via conference calls and materials will be shared on SharePoint and live online meetings. The plan would be submitted for consideration by the President on or before February 15, 2009 and include a cost analysis for each step of the plan. The first stage of the plan would focus on low-cost initiatives such as conference presentations and articles in OT Practice.
  - Costs: Staff hours = 130 hrs. @ $60/hr. = $7,800.

Recommendation 3: (1) Continue professional development circles in corroboration with AOTF and (2) Develop additional mentoring and support system for academic leaders and faculty in the profession.

- Charge staff to develop a proposal in corroboration with AOTF for a professional development circle (similar to the one for program directors).
  - Costs: Staff hours = 30 hrs. @ $60/hr. = $1,800
- Charge staff to develop an AOTA-sponsored forum for this targeted group at the AOTA annual conference.
  - Costs: Staff hours = 30 hrs. @ $60/hr. = $1,800
- Charge staff to identify options and costs of developing an online social network.
  - Costs: Staff hours = 8 hrs. @ $60/hr. = $480
- Request PRODEC and OTAPDEC to develop and promote a program to have graduate students serve as guest lecturers as a means of identifying future educators for the profession.
  - Costs: Staff hours = 16 hrs. @ $60/hr. = $960
- Request PRODEC and OTAPDEC to develop and promote a program to have each program director bring a new or junior faculty with them to the Spring program directors’ meeting.
  - Costs: Staff hours = 8 hrs @ $60/hr. = $480

Recommendation 4: Develop a resource site for sharing information

- Charge staff to identify the costs and information needed to develop and maintain an online resource site for faculty.
  - Costs: Costs: Staff hours = 8 hrs. @ $60/hr. = $480
Note: Cost to develop and maintain a resource page to be determined.

Background information:

The issues surrounding the current and anticipated shortages of faculty in all levels of occupational therapy educational programs are multifaceted and complex. The Ad Hoc Committee formed by the President thoroughly researched the issues involved.

As a baseline, the committee reviewed the recently completed 2007 Faculty Workforce Survey (AOTA, 2007) and the Academic Programs Annual Data (AOTA, 2008). Key issues found in this data included:

- Vacancy rate among academic programs has been consistently at 8-10% for full-time core faculty over the last 3 years.
- Median age of the faculty workforce is 50.
- Median age of program directors is 53.
- Salary discrepancies among academic institutions and between academia and clinical practice.
- Increased teaching load that faculty carry secondary to not being able to fill vacancies with qualified faculty applicants and the impact this has on scholarship/research productivity.
- Average faculty tended to enter academia on average 10-12 years following graduation. The question was further explored as to what role AOTA and other parties can play in promoting entry into practice earlier in their career.

The Committee followed up with listserv surveys and roundtable discussions with OT and OTA faculty to confirm the issues facing faculty. In addition, the Committee undertook a review of the literature and researched other related professional groups to identify if they were experiencing similar issues and what initiatives they were undertaking to address these issues. The related professions surveyed included: (1) nursing, (2) physical therapy, (3) speech pathology, and (4) social work.

Based on the literature review and surveys, the following barriers for pursuing a career in academia were noted:

- **Issues related to women in higher education:** (1) Women’s roles and a frequent disjointed career path with possibly taking off time to raise families, etc. (2) Gender inequities in higher education. (3) Immobility of spouse or significant other in finding work.
- **Issues related to the profession’s beliefs about educators:** (1) Many occupational therapists and occupational therapy assistants do not enter academia until after the age of thirty. By the time an individual is in their 30’s, other life demands make it much harder to complete the necessary degrees and academic requirements. (2) Many individuals in the profession do not consider education and academia equal career choices to other practice areas.
• **Issues related to finances**: (1) Faculty salaries and benefits are often not competitive with other clinical positions. Frequently, individuals experience a significant pay cut to pursue a faculty position. (2) Limited options for financing education (graduate assistantships, tuition remission or waivers, etc.)

• **Issues related to role change**: (1) Insecurities about role change from being a master clinician to being a novice faculty member (confidence and intimidation factors). (2) Issues directly related to teaching (effective pedagogy, instructional design, curriculum design, etc.). (3) High workloads associated with academia and fluid boundaries between work and personal life.

• **Issues related to degree requirements**: (1) Concern related to the fact that many current faculty members have doctorates in related areas, but not necessarily OT. (2) Concerns over the type of degree preparation. (3) Issues related to a clinical doctorate versus a traditional academic terminal degree.

• **Issues related to faculty turnover/retention**: (1) Data from other areas of practice indicate that faculty turnover is costly and has an impact on limited institutional resources. (2) Once faculty are recruited, how do we as a profession support these individuals and foster ongoing professional development? Resources needed include mentoring, helping people evaluate personal professional goals, learning/negotiating systems, developing a plan for development of a career plan that fits with the promotion and tenure system at institutions, and evaluating the type of institution and how it fits with career plans/goal.

It became evident that these issues were consistent in a number of related professions that are practice based and have a high percentage of women practitioners (e.g., physical therapy; nursing, speech pathology, social work). All of these professions are experiencing faculty shortages. It appears that with the exception of nursing, each of the professions are exploring strategies to address these issues, but are no further advanced than occupational therapy. Nursing has a major marketing initiative with a corporate sponsor, but will not see the impact of this campaign for some time to come.

The Committee identified the need to develop a pipeline to recruit, provide information, resources, and support to increase faculty applicants for all practice settings. Program directors and faculty need to target students and young professionals to encourage them to pursue opportunities for fieldwork education, academia, and other opportunities for career advancement.
Selected References


Appendix:

**Proposed Actions Faculty Shortage Grid**

**Faculty Work Force Ad Hoc Committee: August 2008**

The Committee identified a number of issues and proposed actions for the profession. A comprehensive plan was developed which expands beyond the key priority areas identified in the report. There are three primary areas presented (1) Faculty Recruitment, (2) Education, and (3) Faculty Support, Mentoring and Retention. The actions are proposed across three phases from short-range, middle, and long-range phases. The order of each proposed action is not intended to reflect a prioritization within each phase. There will be overlap between the areas.

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<tr>
<td>Recruitment Strategies:</td>
<td>(1) Recruit OT practitioners to become Fieldwork II Educators. This should be handled on a local basis from both the institution and the surrounding OT groups. (2) Recruit fieldwork educators for adjunct and other faculty positions. (3) Recruit leaders in state OT Associations for academia.</td>
<td>Recruitment Strategies: (1) Recruit fieldwork educators to become adjunct faculty members. (2) Target early recruitment of fieldwork educators, on-site evaluators, publishing clinicians. Fieldwork Education: Develop fieldwork educators &amp; laddering into academia. Communication &amp; Resource Sites: Centralize communication for recruitment, education, and support. Develop centralized online resource pages for faculty positions, scholarships for doctoral education, and mentors in education. Evaluate and update changes in communication needs on a regular basis.</td>
<td>Recruitment Strategies: Maintain and revise faculty recruitment and marketing materials to address changes in practice and education. Marketing: Market for OT faculty across pipeline. Communication &amp; Resource Sites: Evaluate and update changes in communication and resource needs on regular schedule. Maintain and improve AOTA online resources for: (1) educational materials (syllabi, teaching materials, etc.), (2) positions available in OT education, (3) OT and OTA mentors in education, and (4) scholarships for doctoral education.</td>
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<td>Clinical Partnerships: Develop partnerships between faculty &amp; clinicians (to share education/research roles).</td>
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<td>Marketing: Market academia as a practice area. Develop marketing materials for OTs across career span to transition to education. (Like nursing “Behind every great OT practitioner is a great OT educator”). Develop marketing materials (postcards, flyers, Web pages, articles, research, brands, slogans) which address the career option of OT academia. Pipeline of Alumni to Faculty: Develop pipeline for Alumni to Adjuncts, Adjuncts to Research, and Adjuncts to full-time faculty (OTA/OT). Doctoral Teaching: Prepare advanced practice doctorates to meet faculty shortages. Adjunct to FT faculty: “Grow your own” faculty from adjuncts (ongoing). Recruit adjunct faculty members</td>
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| Faculty Support, Mentoring and Retention | |
| Fieldwork Education: Develop fieldwork educators & laddering into academia. Communicate with OT associations for academia. Pipeline of Alumni to Faculty: Develop pipeline of Alumni to Adjuncts, Adjuncts to Research, and Adjuncts to full-time faculty (OTA/OT). Doctoral Teaching: Prepare advanced practice doctorates to meet faculty shortages. Adjunct to FT faculty: “Grow your own” faculty from adjuncts (ongoing). Recruit adjunct faculty members | | |
to join college faculty. This may happen within the academic institution for which the adjunct faculty member is working or be shared functions across two or more academic programs.
## Proposed Actions Faculty Shortage Grid

### Faculty Work Force Ad Hoc Committee: August 2008

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<td><strong>Education</strong></td>
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<td>Presentations: Present ad hoc committee findings and proposals at AOTA Conference (booth, forum, workshop, PD meetings).</td>
<td>AOTA Collaboration with Academia: Develop publications, tutorials, and modules on pedagogy to assist transition from fieldwork educator (FWE) to faculty based on AOTA collaboration with academic programs.</td>
<td>Meetings to develop educational partnerships to promote OT education in academic programs.</td>
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<td>Model Career Planning and Decision Making: Draft model pipeline/decision tree for faculty development across career orientation and work, (1) map career goals/life goals – how will a faculty position match personal expectations?, (2) identify indicators for choosing PhD, OTD or other doctoral degrees, and (3) identify role changes from clinician to educator. Partnerships: Develop partnerships to promote OT education with focus on developing: (1) corporate partnerships between AOTA and corporations to market OT education, and (2) professional partnerships with state OT Associations (newsletters, conference presentations) to highlight pipeline for faculty development. Continuing Education Programs: Develop AOTA sponsored comprehensive continuing education plan to address teaching &amp; academia. Suggested topics include: (1) incorporate educator in OT and OTA curriculum based on ACOTE Standard B.9.7., (2) develop goals and activities in teaching, service, and scholarship, (3) define differences of expectations based on Carnegie classifications of the institution, (4) develop a CV versus a resume, (5) address content on adult learning theory, teaching/learning styles, instructional design, needs assessment, learning objectives, design of learning activities/course materials to meet learning objectives, evaluation methods, legal issues. Academic Practicum: Develop professional rotations/practicum in teaching in academia. Leadership Forums: Develop Leadership Forums focused on the transition from clinician to academia and the transition from student to academia.</td>
<td>AOTA Professional Development Tools - Transitioning from Clinician to Educator (1) Transitioning from Clinician to Educator that can be disseminated via self-paced, conference, or online delivery, and (2) Develop guidelines for specialty certification in education. AOTA Continuing Education Courses: Develop AOTA Continuing Ed Course(s) on Transitioning to Academic (self-paced, conference, online). AOTA may assist in this transition by offering courses and education in mentorship so that the faculty may work with the new educator fostering a transition that leads to retention. Marketing Programs for Fieldwork Educators: Develop recruitment and educational materials such as flyers, articles in OT Practice, and through its new voluntary FWE credentialing program. Link FW Education initiatives with faculty recruitment. Continuing Education for Fieldwork Educators: Develop fieldwork educators’ knowledge and skills in; (1) designing learning objectives and activities, (2) understanding and developing fieldwork curriculum designs, and (3) collaborating/teaching with academic fieldwork coordinators. Corporate Partnerships: Continue developing corporate partnerships to promote OT education. COTA Education: Encourage development of more COTA bridge programs to Master’s OT programs (to develop OTA faculty – COTA transition to OTA faculty).</td>
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<td>Leadership Forums: Develop Leadership Forums focused on the transition from clinician to academia and the transition from student to academia.</td>
<td><strong>Marketing Programs for Fieldwork Educators: Develop recurring continuing education for fieldwork educators</strong> (1) offering courses in teaching and learning, (2) faculty development on teaching/learning methodologies and research methods, (3) membership in educating organizations, and (4) online courses. <strong>Resource Site: Create OT-AOTA Education Area and FWE Program</strong> (1) develop curriculum designs for educational programs, and (2) Develop guidelines for specialty certification in education.</td>
<td>Meetings to develop educational partnerships to promote OT education in academic programs.</td>
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<td><strong>Middle Phase (2010-2012)</strong></td>
<td><strong>Long Range (2012 - 2017)</strong></td>
<td><strong>Marketing Programs for Fieldwork Educators: Develop recurring continuing education for fieldwork educators</strong> (1) offering courses in teaching and learning, (2) faculty development on teaching/learning methodologies and research methods, (3) membership in educating organizations, and (4) online courses. <strong>Resource Site: Create OT-AOTA Education Area and FWE Program</strong> (1) develop curriculum designs for educational programs, and (2) Develop guidelines for specialty certification in education.</td>
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<td><strong>Long Range (2012 - 2017)</strong></td>
<td><strong>Marketing Programs for Fieldwork Educators: Develop recurring continuing education for fieldwork educators</strong> (1) offering courses in teaching and learning, (2) faculty development on teaching/learning methodologies and research methods, (3) membership in educating organizations, and (4) online courses. <strong>Resource Site: Create OT-AOTA Education Area and FWE Program</strong> (1) develop curriculum designs for educational programs, and (2) Develop guidelines for specialty certification in education.</td>
<td>Meetings to develop educational partnerships to promote OT education in academic programs.</td>
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### Proposed Actions Faculty Shortage Grid

**Faculty Work Force Ad Hoc Committee: August, 2008**

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<td><strong>Faculty Support,</strong></td>
<td>Faculty Mentoring: Develop mentors for OT and OTA faculty (local, state, national) and disseminate via an AOTA online resource site.</td>
<td>Faculty Mentoring: Develop AOTA supported Faculty Mentorship programs by using online resource sites for; (1) connecting adjunct and full-time faculty teaching similar courses from a variety of institutions (like the listservs for program directors and academic fieldwork coordinators), (2) professional development plans &amp; activities, and (3) support of fellowships and advanced practicum in teaching in academia.</td>
<td>Communication &amp; Resources: Routinely evaluate and update AOTA online resource sites for (1) educational materials (syllabi, teaching materials, etc.), (2) faculty positions, (3) mentors in education, and (4) scholarships for doctoral education.</td>
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<td><strong>Mentoring &amp; Retention</strong></td>
<td>Professional Development Circles: Develop professional development circles for emerging leaders focused on Transition to Academia. Link Leadership Forums with promoting new leadership OT education and research. Faculty Retention Surveys: Conduct AOTA sponsored national surveys on faculty retention to address three groups; (1) OTs with doctoral degrees (focus: past history of employment as a faculty member and factors contributing to leaving higher education), (2) OT and OTA faculty currently employed in academic programs (focus: likelihood of leaving within the next 3 years and factors contributing to that decision), and (3) academic program coordinators (focus: number of faculty resignations, their perception of reason for leaving, number of positions lost).</td>
<td><strong>Communication &amp; Resources:</strong> Routinely evaluate and update AOTA online resource sites for (1) educational materials (syllabi, teaching materials, etc.), (2) faculty positions, (3) scholarships for doctoral education, and (4) continuing education on transition into academia. <strong>Fellowships &amp; Incentives:</strong> Continue strengthening corporate partnerships to; (1) support fellowships, (2) provide incentives for higher education, and (3) to promote OT recruitment &amp; education. <strong>Faculty Retention Surveys:</strong> Routinely conduct AOTA-sponsored national surveys to address faculty retention needs and plans/strategies.</td>
<td><strong>Communication &amp; Resources:</strong> Routinely evaluate and update AOTA online resource sites for (1) educational materials (syllabi, teaching materials, etc.), (2) faculty positions, (3) mentors in education, and (4) scholarships for doctoral education.</td>
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**Committee Members:**
Janet S. Jedlicka, PhD, OTR/L, Chair, Rebecca R. Bahnke, MHS, OTR/L, Jody Bortone, EdD, OTR/L, Tia Hughes, MBA, OTR/L, Kathleen Matsuka, MS, OTR/L, Christy L.A. Nelson, PhD, OTR/L, FAOTA, Neil Harvison, PhD, OTR/L, AOTA Liaison
Report to Ad Hoc Committee for Future of OT Education

**Topic: Fieldwork**

This report is the result of work over the last several months from task group members Sharon Glennen, PhD, CCC-SLP; Debra J. Hanson, PhD, OTR; Susan M. Higgins, MA, OTR/L; Teri A. Murray, PhD, RN; and Tamra Trenary, OTD, OTR/L, BCPR, with additional contributions from Camille Sauerwald, EdM, OTR; and Michael Roberts, MS, OTR/L. It was a pleasure to have worked with all of these people, and I would like to thank you for the opportunity to have led this group. I would also like to thank you for the opportunity to make these recommendations.

A thoughtful question came up rather early in this project, “Are there actually substantial problems with fieldwork?” Not an easy question to answer, as there is paucity of data on the subject. Subsequently, the group developed a set of working assumptions which were used to develop a draft of recommendations, all of which were detailed in a preliminary report submitted earlier this year. This report was presented at the Combined Program Directors & Academic Fieldwork Coordinators Meeting in Orlando in October, which was followed by an electronic “straw poll”. The intent of the survey was to corroborate or refute the assumptions used in the preliminary report and also to gauge the general level of support for the recommendations among the attendees of the meeting (see appendix for survey questions and results). The results of that survey were used for this final report, which is categorized into 4 topics with a total of 11 specific recommendations.

1. **Develop a centralized database infrastructure for fieldwork education, similar to the Centralized Application Service for Occupational Therapy (OTCAS), as a self-sustaining third party clearinghouse for development of fieldwork sites, and for facilitating networking of fieldwork sites and academic institutions.**

   Given the present demand for practitioners, the projected growth in the profession on the service delivery-end, and increasing productivity expectations from employers, the most probable cost effective way to improve capacity for fieldwork education is to focus on improving efficiency with networking of potential existing resources (i.e., academic institutions and fieldwork sites).

   **Recommendation 1:** Contract someone to develop a centralized electronic infrastructure to serve as a user interface to connect potential fieldwork sites and academic institutions, and also to serve as a repository for maintaining administrative requirements associated with fieldwork. For potential fieldwork sites, this would minimally include the site data form, site specific learning objectives, as well as known administrative contractual requirements. For academic institutions, this would minimally include known administrative contractual requirements, dates for rotations, objectives for rotations, and curriculum information. Participation in this service should be voluntary, and should not obligate either party to participate.

   **Recommendation 2:** The cost structure should be free or minimal for the fieldwork sites. Academic programs should be the primary payer of fees, with costs recouped through savings offset in deferred administrative personnel costs. Costs beyond those offset by administrative personnel savings could be potentially passed along by the academic institution as student fees, or a cost structure could be put in place to spread costs across all parties, although given the growing demand for fieldwork placements and the
present relative scarcity, costs to potential sites should be avoided if at all possible, at least initially. The most likely cost structure would need to have a somewhat sizeable onetime startup fee paid by the academic institution, along with a recurring, much smaller annual fee. Structuring the costs this way would encourage continued use of the service, minimizing the incentive for academic institutions to join for one year for access to sites to fulfill short term needs, and then quit. After there are a sufficient number of established participating fieldwork sites, charging a nominal fee to the sites may be helpful in developing a greater perceived worth in participating.

**Recommendation 3**: Develop an internal marketing campaign directed at academic fieldwork coordinators explaining the purpose and benefits of a centralized fieldwork database service. The general esprit de corps among academic fieldwork coordinators is such that a centralized fieldwork database service may be perceived as a threat if it is not clearly articulated as something that is voluntary, something that does not supplant the role of the academic fieldwork coordinator in determining “fit” of a student with a site, and something that in no way would obligate sites who have valued relationships with academic institutions to take students from other institutions. This marketing effort could also be combined with information directed at academic program directors, detailing cost effectiveness of participation.

**Recommendation 4**: Develop an external marketing campaign directed at potential fieldwork sites explaining the purpose and benefits of participating in this service. Given the demand of fieldwork placements and the relative scarcity of supply of fieldwork placements (and worsening projected scarcity), this piece is vital. It should be a two prong approach, with materials specifically for employers and administrators, and materials for potential fieldwork educators. It should be straightforward in content, extolling the benefits of participation (e.g., free, easy, saves time with maintaining records, etc.).

**Recommendation 5**: Assemble an organized, easily accessible resource bank and virtual community for fieldwork educators and academic fieldwork coordinators contained within the centralized fieldwork database service. Creating a sense of community and sustaining worth for users will help with the long term viability of something that is fee-for-service. There are many good existing resources for fieldwork education, many that are free, even, but these are not easily found for a number of reasons (e.g., documents in multiple locations or with low visibility, resources are unknown to potential interested parties, etc.). By collecting and consolidating existing resources, and having a more visible, centralized location for virtual discussions that would be visited regularly by all parties directly associated with fieldwork, there is the potential to create something of worth even beyond the original concept of the fieldwork database service.

2. **Develop a cohesive, uniform developmental sequence of performance objectives across the entire fieldwork experience.**

The majority of existing educational models were in place prior to the proliferation of licensure. Change of the current fieldwork model in our profession to a tiered experiential readiness model (e.g., residency with licensure requirements already met) without accompanying administrative code revisions would likely result in something that is fiscally unviable, as fieldwork sites would have little to no financial incentive for participation in such a model and would have no legal obligation to participate. Subsequently, large scale
administrative code reworking would be required to properly create tiered licensure, which would likely be labor, time, and cost prohibitive.

When examining our present model, it is evident that there is room for growth and improved efficiency. Specifically, Level I fieldwork is seemingly underutilized, as it is quiet broad in intent, highly varied across academic institutions, and can be perceived by fieldwork sites as ambiguous and/or something that is primarily observation-based. Furthermore, the relative jump in expectations from Level I fieldwork to Level II fieldwork is vast. Also, there is no obligatory codified difference between Level IIA and IIB other than variety of practice setting, despite the somewhat extensive length of these collective experiences (24 weeks for the occupational therapist, 16 for the occupational therapy assistant).

The most important variable for student success on fieldwork is a high level of student preparedness. Highly prepared students are less taxing of fieldwork resources, and are valued by fieldwork educators, employers, and administrators. More uniformly prepared students results in a better match of fieldwork educator expectations with student performance. While there will never be complete uniformity, there is a considerable amount of room in the existing fieldwork model to facilitate a more robust level of preparedness, which could be somewhat easily addressed through credentialing standards, and competency-based evaluation measures.

**Recommendation 6:** Charge ACOTE to develop more specific standards for level I fieldwork experiences. Ideally, these would be based on the different components of the Practice Framework and OT process, sequenced developmentally from simple to complex, and should also incorporate core competencies associated with interprofessional education as outlined by the Interprofessional Education Collaborative (see appendix). These should transcend practice settings, and should not restrict academic institutions by dictating methods of how to be successfully attained.

**Recommendation 7:** Charge ACOTE to develop different standards associated with the Level IIA experience and the Level IIB experience. If entry level generalist is the overall objective of the collective Level II experience, it seems illogical to have the same educational credentialing standards and the same measure of performance used for the Level IIA experience and the Level IIB experience, with the only obligated difference between the two experiences being practice settings.

**Recommendation 8:** A task force should be charged with developing a competency-based standardized evaluation measure that will span the continuum of learning expected on fieldwork to include both Level I and II experiences.

3. Develop an overall marketing plan specifically for fieldwork

The key customer group in the fieldwork relationship is the fieldwork site, and by extension, fieldwork educators. While there are many benefits to fieldwork educators and sites for participating in this relationship, there is no overt, tangible economic benefit. The economics of most practice settings result in high productivity expectations for people who would typically serve in this role, creating a potential disincentive to participate. Administrators of facilities are not likely to feel obligated to participate in this relationship for the sake of “the minimal contribution to the profession”, an often cited reason among ardent fieldwork supporters. While many see the promise of emerging practice settings and community
sites as being a viable fieldwork alternative to the traditional medical model of service provision, the visibility of our profession in emerging practice settings is, by definition, low to nonexistent, and will need thoughtful development efforts to become substantial enough to help with alleviating the present and expected shortages of sites. Even then, more fieldwork sites will be needed.

No fieldwork site is obligated to participate in the fieldwork relationship, and there is no practical way to change this. To increase the volume of available fieldwork sites, there must be an increase of awareness, motivation, incentive, and perception of reward for participating within the key customer group, i.e., fieldwork sites and fieldwork educators. A well-developed marketing plan seems to be the most practical, cost-efficient, and politically viable way of achieving this on a large scale.

Recommendation 9: Contract an external marketing agency to develop a comprehensive marketing plan for community, medical, and educational model practice settings. Each category should contain at least three different sets of audience-specific materials, targeting employers and administrators, potential fieldwork educators, and existing fieldwork educators. The intent of the materials should be to promote awareness of benefits of participating in fieldwork education, while also emphasizing efficient alternatives for supervision.

Recommendation 10: Information dissemination for the marketing campaign ideally would be done in conjunction with the implementation of recommendation 5 of this report (i.e., marketing efforts could be combined for cost savings)

4. Retain fieldwork as the terminology associated with the practicum aspect of educational requirements for the profession

Recommendation 11: It seems unwise to adopt new terminology at this time, given the likely resource expenditure required to properly adopt new terminology profession-wide (e.g., marketing of terminology change, printing costs, personnel costs associated with necessary information technology changes, etc.). The term “fieldwork”, while occasionally ambiguous when communicating with other professions and the public, is something that is easily clarified. Beyond that, “fieldwork” as a term to describe the practicum portion of the educational requirements for the profession does not seem to be particularly problematic. The same terminology is widely used within our profession internationally. While the task group did investigate alternative language, no choice seems to be significantly preferable to the existing terminology.

Respectfully Submitted,

Christopher A. Eidson, MS, OTR/L
Chairperson, Fieldwork Task Group
The University of Alabama at Birmingham
Appendices
### Turning Graphical Results by Question

**Session Name: FRIDAY 10-5-2012 5-10 PM**  
**Created: 11/26/2012 10:13 AM**

1. **One thing that impacts fieldwork is the lack of available sites (multiple choice)**  

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>11</td>
<td>3.41%</td>
</tr>
<tr>
<td>Disagree</td>
<td>27</td>
<td>8.36%</td>
</tr>
<tr>
<td>Neutral/unsure</td>
<td>21</td>
<td>6.50%</td>
</tr>
<tr>
<td>Agree</td>
<td>144</td>
<td>44.58%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>120</td>
<td>37.15%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>323</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

2. **One thing that impacts fieldwork is the productivity expectations of employers (multiple choice)**

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
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<td>2.79%</td>
</tr>
<tr>
<td>Disagree</td>
<td>17</td>
<td>5.26%</td>
</tr>
<tr>
<td>Neutral/unsure</td>
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<td>10.84%</td>
</tr>
<tr>
<td>Agree</td>
<td>140</td>
<td>43.34%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>122</td>
<td>37.77%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>323</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
3.) 3. One thing that impacts fieldwork is increasing restrictions on reimbursement of services provided by students (multiple choice) Responses

<table>
<thead>
<tr>
<th></th>
<th>326</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>3</td>
<td>0.92%</td>
</tr>
<tr>
<td>Disagree</td>
<td>29</td>
<td>8.90%</td>
</tr>
<tr>
<td>Neutral/unsure</td>
<td>40</td>
<td>12.27%</td>
</tr>
<tr>
<td>Agree</td>
<td>162</td>
<td>49.69%</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>92</td>
<td>28.22%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>326</td>
<td>100%</td>
</tr>
</tbody>
</table>

4.) 4. How often do you use alternative FW supervision models? That is, any model that is not the traditional “1 fieldwork educator: 1 fieldwork student”?

(multiple choice) Responses

<table>
<thead>
<tr>
<th></th>
<th>321</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never use</td>
<td>65</td>
<td>20.25%</td>
</tr>
<tr>
<td>Rarely use</td>
<td>122</td>
<td>38.01%</td>
</tr>
<tr>
<td>Occasionally use</td>
<td>98</td>
<td>30.53%</td>
</tr>
<tr>
<td>Frequently use</td>
<td>33</td>
<td>10.28%</td>
</tr>
<tr>
<td>Very frequently use</td>
<td>3</td>
<td>0.93%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>321</td>
<td>100%</td>
</tr>
</tbody>
</table>
5.) 6. I would like to see established competencies for use in Level I fieldwork experiences across all academic institutions. (multiple choice)  

<table>
<thead>
<tr>
<th>Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>51</td>
</tr>
<tr>
<td>Disagree</td>
<td>60</td>
</tr>
<tr>
<td>Neutral/unsure</td>
<td>50</td>
</tr>
<tr>
<td>Agree</td>
<td>95</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>66</td>
</tr>
<tr>
<td>Totals</td>
<td>322</td>
</tr>
</tbody>
</table>

6.) 5. Which of the following statements best describes the overall intention of level I fieldwork at your academic institution? (multiple choice)  

<table>
<thead>
<tr>
<th>Responses</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active observation</td>
<td>11</td>
</tr>
<tr>
<td>Active observation plus a general project</td>
<td>89</td>
</tr>
<tr>
<td>Active observation plus a specific application</td>
<td>200</td>
</tr>
<tr>
<td>None of the above</td>
<td>25</td>
</tr>
<tr>
<td>Totals</td>
<td>325</td>
</tr>
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</table>
7.) 7. Does the requirement for OT of a minimum of 24 weeks of full time equivalent FW prepare entry level practitioners? (multiple choice) Responses

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is inadequate</td>
<td>33</td>
<td>10.15%</td>
</tr>
<tr>
<td>It is adequate</td>
<td>229</td>
<td>70.46%</td>
</tr>
<tr>
<td>It is excessive</td>
<td>11</td>
<td>3.38%</td>
</tr>
<tr>
<td>Unknown/no opinion</td>
<td>52</td>
<td>16%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>325</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

8.) 8. Does the requirement for OTA of a minimum of 16 weeks of full time equivalent FW prepare entry level practitioners? (multiple choice) Responses

<table>
<thead>
<tr>
<th>Response</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is inadequate</td>
<td>46</td>
<td>14.33%</td>
</tr>
<tr>
<td>It is adequate</td>
<td>157</td>
<td>48.91%</td>
</tr>
<tr>
<td>It is excessive</td>
<td>6</td>
<td>1.87%</td>
</tr>
<tr>
<td>Unknown/no opinion</td>
<td>112</td>
<td>34.89%</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>321</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
9.) 9. Is “Fieldwork” the correct label for experiential rotations? (multiple choice)

<table>
<thead>
<tr>
<th>Responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly disagree</td>
<td>22</td>
</tr>
<tr>
<td>Disagree</td>
<td>42</td>
</tr>
<tr>
<td>Neutral/unsure</td>
<td>95</td>
</tr>
<tr>
<td>Agree</td>
<td>125</td>
</tr>
<tr>
<td>Strongly agree</td>
<td>46</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>330</strong></td>
</tr>
</tbody>
</table>

10.) 10. How would you best describe the ability to develop new fieldwork sites at your academic program? (multiple choice)

<table>
<thead>
<tr>
<th>Responses</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
<td>10</td>
</tr>
<tr>
<td>Relatively easy</td>
<td>88</td>
</tr>
<tr>
<td>Neutral</td>
<td>40</td>
</tr>
<tr>
<td>Relatively difficult</td>
<td>138</td>
</tr>
<tr>
<td>Difficult</td>
<td>50</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>326</strong></td>
</tr>
</tbody>
</table>
11.) 11. Have you had to limit the number of students admitted to the program because of limited availability of FW sites? (multiple choice)  

<table>
<thead>
<tr>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>71</td>
</tr>
<tr>
<td>No</td>
<td>229</td>
</tr>
<tr>
<td>Unsure/don’t know</td>
<td>23</td>
</tr>
<tr>
<td>Totals</td>
<td>323</td>
</tr>
</tbody>
</table>

12.) 12. Has payment to fieldwork facilities ever been considered by your academic institution? (multiple choice)  

<table>
<thead>
<tr>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>51</td>
</tr>
<tr>
<td>No</td>
<td>271</td>
</tr>
<tr>
<td>Unsure/don’t know</td>
<td>9</td>
</tr>
<tr>
<td>Totals</td>
<td>331</td>
</tr>
</tbody>
</table>
Core Competencies for Interprofessional Collaborative Practice

Sponsored by the Interprofessional Education Collaborative*

Report of an Expert Panel
May 2011

*IPEC sponsors:
- American Association of Colleges of Nursing
- American Association of Colleges of Osteopathic Medicine
- American Association of Colleges of Pharmacy
- American Dental Education Association
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Core Competencies for Interprofessional Collaborative Practice

Report of an Expert Panel

This report is inspired by a vision of interprofessional collaborative practice as key to the safe, high quality, accessible, patient-centered care desired by all. Achieving that vision for the future requires the continuous development of interprofessional competencies by health professions students as part of the learning process, so that they enter the workforce ready to practice effective teamwork and team-based care. Our intent was to build on each profession’s expected disciplinary competencies in defining competencies for interprofessional collaborative practice. These disciplinary competencies are taught within the professions. The development of interprofessional collaborative competencies (interprofessional education), however, requires moving beyond these profession-specific educational efforts to engage students of different professions in interactive learning with each other. Being able to work effectively as members of clinical teams while students is a fundamental part of that learning.
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This report is organized in the following fashion: first, we provide key definitions and principles that guided us in identifying core interprofessional competencies. Then, we describe the timeliness of interprofessional learning now, along with separate efforts by the six professional education organizations to move in this direction. We identify eight reasons why it is important to agree on a core set of competencies across the professions. A concept- interprofessionality- is introduced as the idea that is foundational to the identification of core interprofessional competency domains and the associated specific competencies. Interprofessional education has a dynamic relationship to practice needs and practice improvements. In the concluding background section, we describe three recently developed frameworks that identify interprofessional education as fundamental to practice improvement.

Then, the competency approach to learning is discussed, followed by what distinguishes interprofessional competencies. We link our efforts to the five Institute of Medicine (IOM) core competencies for all health professionals (IOM, 2003). The introduction and discussion of the four competency domains and the specific competencies within each form the core of the report. We describe how these competencies can be formulated into learning objectives and learning activities at the pre-licensure/pre-certifying level, and name several factors influencing choice of learning activities. Educators are now beginning to develop more systematic curricular approaches for developing interprofessional competencies. We provide several examples. We conclude the report with discussion of key challenges to interprofessional competency development and acknowledge several limitations to the scope of the report. An appendix describes the goals of the IPEC group that prompted the development of this report, the panel’s charge, process and participants.

Preliminary work to review previously identified interprofessional competencies and related frameworks, along with core background reading on competency development, preceded our face-to-face, initial meeting. Consensus working definitions of interprofessional education and interprofessional collaborative practice were agreed to at that meeting. The need to define the difference between teamwork and team-based care as different aspects of interprofessional collaborative practice, and agreement on competency definitions came later in our work. The definitions we chose for interprofessional education and interprofessional collaborative practice are broad, current, and consistent with language used widely in the international community. Teamwork and team-based care definitions distinguish between core processes and a form of interprofessional care delivery. Competency definitions are consistent with the charge given to the expert panel by the Interprofessional Education Collaborative.
We agreed that the competency domains and specific competencies should remain general in nature and function as guidelines, allowing flexibility within the professions and at the institutional level. Faculty and administrators could access, share, and build on overall guidelines to strategize and develop a program of study for their profession or institution that is aligned with the general interprofessional competency statements but contextualized to individual professional, clinical, or institutional circumstances. We identified desired principles of the interprofessional competencies:

- Patient/family centered (hereafter termed “patient centered”)
- Community/population oriented
- Relationship focused
- Process oriented
- Linked to learning activities, educational strategies, and behavioral assessments that are developmentally appropriate for the learner
- Able to be integrated across the learning continuum
- Sensitive to the systems context/applicable across practice settings
- Applicable across professions
- Stated in language common and meaningful across the professions
- Outcome driven

Operational Definitions

Interprofessional education: “When students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes” (WHO, 2010)

Interprofessional collaborative practice: “When multiple health workers from different professional backgrounds work together with patients, families, carers [sic], and communities to deliver the highest quality of care” (WHO, 2010)

Interprofessional teamwork: The levels of cooperation, coordination and collaboration characterizing the relationships between professions in delivering patient-centered care

Interprofessional team-based care: Care delivered by intentionally created, usually relatively small work groups in health care, who are recognized by others as well as by themselves as having a collective identity and shared responsibility for a patient or group of patients, e.g., rapid response team, palliative care team, primary care team, operating room team

Professional competencies in health care: Integrated enactment of knowledge, skills, and values/attitudes that define the domains of work of a particular health profession applied in specific care contexts

Interprofessional competencies in health care: Integrated enactment of knowledge, skills, and values/attitudes that define working together across the professions, with other health care workers, and with patients, along with families and communities, as appropriate to improve health outcomes in specific care contexts

Interprofessional competency domain: A generally identified cluster of more specific interprofessional competencies that are conceptually linked, and serve as theoretical constructs (ten Cate & Scheele, 2007)
Currently, the transformation of health professions education is attracting widespread interest. The transformation envisioned would enable opportunities for health professions students to engage in interactive learning with those outside their profession as a routine part of their education. The goal of this interprofessional learning is to prepare all health professions students for *deliberately working together* with the common goal of building a safer and better patient-centered and community/population oriented U.S. health care system.

Interest in promoting more team-based education for U.S. health professions is not new. At the first IOM Conference, “Interrelationships of Educational Programs for Health Professionals,” and in the related report “Educating for the Health Team” (IOM, 1972), 120 leaders from allied health, dentistry, medicine, nursing, and pharmacy considered key questions at the forefront of contemporary national discussions about interprofessional education.

The move to encourage team-based education at that time grew out of several assumptions made by that IOM Committee: that there were serious questions about how to use the existing health workforce optimally and cost-effectively to meet patient, family, and community health care needs; that educational institutions had a responsibility not only to produce a healthcare workforce that was responsive to health care needs but also to ensure that they could practice to their full scope of expertise; that optimal use of the health professions workforce required a cooperative effort in the form of teams sharing common goals and incorporating the patient, family, and/or community as a member; that this cooperation would improve care; and that the existing educational system was not preparing health professionals for team work. Almost 40 years later, these issues are still compelling.

The 1972 Conference Steering Committee recommendations were multilevel: organizational, administrative, instructional, and national. At the organizational and instructional levels, they cited the obligation of academic health centers to conduct interdisciplinary education and patient care; to develop methods to link that education with the “practical requirements” of health care; to use clinical settings, especially ambulatory settings, as sites for this education; to integrate classroom instruction in the humanities and the social and behavioral sciences; and to develop new faculty skills in instruction that would present role models of cooperation across the health professions. At the national level, the recommendations called for developing a national “clearinghouse” to share instructional and practice models; providing government agency support for innovative instructional and practice models, as well as examining obstacles to such efforts; and initiating a process in the IOM to foster interdisciplinary education in the health professions. These recommendations have currency today.

"Why do we need to educate teams for the delivery of health care? Who should be educated to serve on health delivery teams? How should we educate students of health professions in order that they might work in teams (emphasis on classroom and basic behavioral and biological sciences curriculum)? How should we educate students and health professionals in order that they might work in teams (emphasis on clinical training)? What are the requirements for educating health professionals to practice in health care delivery teams? What are the obstacles to educating health professionals to practice in health care delivery teams?"

(IOM, 1972, pp. 1-2)
The IOM report encouraged funding for educational demonstrations of interdisciplinary professional education in the Health Resources and Services Administration (HRSA), and the effort garnered substantial foundation support. However, such programs remained largely elective, dependent on this external support, and targeted small numbers of students. Several intra- and interprofessional factors limited “mainstreaming” of interprofessional education during this time (Schmitt, Baldwin, & Reeves, forthcoming).

Reports between then and now (e.g., O’Neil & the Pew Health Professions Commission, 1998) have made similar recommendations, and interprofessional care has found traction in numerous specialized areas of health care. However, with the isolation of health professions education from the practice of health care, practice realities have not been sufficient to motivate fundamental health professions’ educational changes. Compelling larger-scale practice issues that emerged in the past decade have prompted broad-based support for changes in health professions education, including interactive learning to develop competencies for teamwork and team-based care.

Widespread patient error in U.S. hospitals associated with substantial preventable mortality and morbidity, as well as major quality issues, has revealed the inadequacies in costly systems of care delivery (IOM, 2000, 2001). It is clear that how care is delivered is as important as what care is delivered. Developing effective teams and redesigned systems is critical to achieving care that is patient-centered, safer, timelier, and more effective, efficient, and equitable (IOM, 2001). Equipping a workforce with new skills and “new ways of relating to patients and each other” (IOM, 2001, p. 19) demands both retraining of the current health professions workforce and interprofessional learning approaches for preparing future health care practitioners.

The focus on workforce retraining to build interprofessional teamwork and team-based care continues, particularly in the context of improving institutional quality (effectiveness) and safety (Agency for Healthcare Research and Quality, 2008; Baker et al., 2005a, 2005b; King et al., 2008). Growing evidence supports the importance of better teamwork and team-based care delivery and the competencies needed to provide that kind of care.

The passage of the Recovery and Reinvestment Act of 2009 (Steinbrook, 2009) and the Patient Protection and Affordable Care Act of 2010 (Kaiser Family Foundation, 2010) has stimulated new approaches, such as the “medical home” concept, to achieving better outcomes in primary care, especially for high-risk chronically ill and other at-risk populations. Improved interprofessional teamwork and team-based care play core roles in many of the new primary care approaches. The idea of primary care and its relationship to the broader context of health is itself being reconsidered. First, in primary care there is a focus on expanded
accountability for population management of chronic diseases that links to a community context. Second, health care delivery professionals jointly with public health professionals share roles and responsibilities for addressing health promotion and primary prevention needs related to behavioral change. Third, health care professionals and public health professionals work in collaboration with others on behalf of persons, families and communities in maintaining healthy environments, including responding to public health emergencies. All of these elements link direct health care professionals more closely with their public health colleagues. Therefore, the principles from which we worked included both patient-centeredness and a community/population orientation.

Teamwork training for interprofessional collaborative practice in health professions education has lagged dramatically behind these changes in practice, continually widening the gap between current health professions training and actual practice needs and realities. To spur educational change, after releasing the two reports on safety and quality (IOM, 2000, 2001), the IOM sponsored a second summit on health professions education. Attendees at the summit identified five competencies central to the education of all health professions for the future: provide patient-centered care, apply quality improvement, employ evidence-based practice, utilize informatics, and work in interdisciplinary teams (IOM, 2003). It was noted that many successful examples of interprofessional education exist but that “interdisciplinary education has yet to become the norm in health professions education” (IOM, 2003, p. 79).

Recognizing that health professions schools bear the primary responsibility for developing these core competencies, considerable emphasis also was placed on better coordinated oversight processes (accreditation, licensure, and certification) and continuing education to ensure the development, demonstration, and maintenance of the core competencies. The report indicated that although the accrediting standards of most professions reviewed contained content about interdisciplinary teams, few of these were outcomes-based competency expectations.

**Interprofessional education, by profession**

Policy, curricular, and/or accreditation changes to strengthen teamwork preparation are at various stages of development among the six professions represented in this report. The American Association of Colleges of Nursing, for example, has integrated interprofessional collaboration behavioral expectations into its “Essentials” for baccalaureate (2008) master’s (2011) and doctoral education for advanced practice (2006). Leaders within nursing have drawn from the IOM framework of the five core competencies for all health professionals to compose pre-licensure and graduate-level competency statements geared toward quality and safety outcomes, which integrate teamwork and team-based competencies (Cronenwett et al., 2007, 2009).
The Association of American Medical Colleges (AAMC) formally identified interprofessional education as one of two “horizon” issues for action in 2008, although calls for attention to interprofessional education can be traced back through a series of AAMC reports, including its landmark 1965 Coggeshall Report. An initial survey was conducted of interprofessional education in U.S. medical schools in 2008 and serves as a current benchmark (Blue, Zoller, Stratton, Elam, & Gilbert, 2010). The Accreditation Council on Graduate Medical Education (ACGME) Outcomes Project is being used as a competency guide by many undergraduate programs in medicine. It incorporates general competencies of professionalism, interpersonal and communication skills, and systems-based practice, along with an expectation that residents are able to work effectively as members or leaders of health care teams or other professional groups, and to work in interprofessional teams to enhance patient safety and care quality (ACGME, 2011). Analysis of data from a 2009 ACGME multispecialty resident survey showed that formal team training experiences with non-physicians was significantly related to greater resident satisfaction with learning and overall training experiences, as well as to less depression, anxiety, and sleepiness, and to fewer reports by residents of having made a serious medical error (Baldwin, 2010). Pilot work is ongoing by the American Board of Internal Medicine to evaluate hospitalist teamwork skills (Chesluk, 2010).

Dentistry has been developing competencies for the new general dentist. Among those competencies is “participate with dental team members and other health care professionals in the management and health promotion for all patients” (American Dental Education Association, 2008). Interprofessional education has been identified as a critical issue in dental education. Authors of a position paper have explored the rationale for interprofessional education in general dentistry and the leadership role of academic dentistry and organized dentistry in this area (Wilder et al., 2008). Accreditation standards for dental education programs adopted in August 2010 for implementation in 2013 contain language promoting collaboration with other health professionals (Commission on Dental Accreditation, 2010).

National pharmacy education leaders completed intensive study of interprofessional education and its relevance to pharmacy education (Buring et al., 2009). Curricular guidance documents (American Association of Colleges of Pharmacy, 2004), a vision statement for pharmacy practice in 2015 (Maine, 2005), and accreditation requirements (Accreditation Council for Pharmacy Education, 2011) now incorporate consistent language. Phrases such as “provide patient care in cooperation with patients, prescribers, and other members of an interprofessional health care team,” “manage and use resources in cooperation with patients, prescribers, other health care providers, and administrative and supportive personnel,” and “promote health improvement, wellness, and disease prevention in cooperation with patients, communities, at-risk populations, and other members of an interprofessional team of health care providers” appear throughout those documents.
The Association of Schools of Public Health (ASPH) recently released draft undergraduate learning outcomes relevant to all two- and four-year institutions. The most explicit of the four learning outcomes relevant to interprofessional education is: “Engage in collaborative and interdisciplinary approaches and teamwork for improving population health” (Association of Schools of Public Health, 2011, p. 5-6). At the master's level, 10 competencies create opportunities related to interprofessional education (Association of Schools of Public Health, 2006).

Interprofessional education has received some attention in the osteopathic medical literature (e.g., Singla, G. MacKinnon, K. MacKinnon, Younis, & Field, 2004). An exploratory analysis of the relationship between the principles of osteopathic medicine and interprofessional education is in press, as part of a description of a three-phase interprofessional education program underway involving one osteopathic medical school and eight other health professions (Macintosh, Adams, Singer-Chang, & Hruby, forthcoming, 2011). Interprofessional competencies developed for this program at Western University of Health Sciences anticipated the development of the expert panel’s work.

These educational changes suggest individual health professions’ movement toward incorporating competency expectations for interprofessional collaborative practice. However, the need remains to identify, agree on, and strengthen core competencies for interprofessional collaborative practice across the professions.

Core competencies are needed in order to:

1) create a coordinated effort across the health professions to embed essential content in all health professions education curricula,

2) guide professional and institutional curricular development of learning approaches and assessment strategies to achieve productive outcomes,

3) provide the foundation for a learning continuum in interprofessional competency development across the professions and the lifelong learning trajectory,

4) acknowledge that evaluation and research work will strengthen the scholarship in this area,

5) prompt dialogue to evaluate the “fit” between educationally identified core competencies for interprofessional collaborative practice and practice needs/demands,

“Many of our [osteopathic medical] colleges are moving into IPE with major initiatives, taking advantage of the environments offered by their colleagues in the other health professions within their universities or affiliates…”

(Shannon, 2011)
Core Competencies for Interprofessional Collaborative Practice
Report of an Expert Panel

6) find opportunities to integrate essential interprofessional education content consistent with current accreditation expectations for each health professions education program (see University of Minnesota, Academic Health Center, Office of Education, 2009),

7) offer information to accreditors of educational programs across the health professions that they can use to set common accreditation standards for interprofessional education, and to know where to look in institutional settings for examples of implementation of those standards (see Accreditation of Interprofessional Health Education: Principles and practices, 2009; and Accreditation of Interprofessional Health Education: National Forum, 2009), and

8) inform professional licensing and credentialing bodies in defining potential testing content for interprofessional collaborative practice.

Clear development of core competencies for interprofessional collaborative practice requires a unifying concept. D’Amour and Oandasan (2005) delineated the concept of interprofessionality as part of the background work for initiatives by Health Canada to foster interprofessional education and interprofessional collaborative practice. They defined interprofessionality as

“The process by which professionals reflect on and develop ways of practicing that provides an integrated and cohesive answer to the needs of the client/family/population… It involves continuous interaction and knowledge sharing between professionals, organized to solve or explore a variety of education and care issues all while seeking to optimize the patient’s participation… Interprofessionality requires a paradigm shift, since interprofessional practice has unique characteristics in terms of values, codes of conduct, and ways of working. These characteristics must be elucidated” (p. 9).

The competency domains and specific competencies associated with them identified in this report represent our efforts to define those characteristics.
Frameworks Reflective of the Interdependence between Health Professions’ Education and Practice Needs

Until recently, no framework captured the interdependence between health professions’ education competency development for collaborative practice and practice needs. Three frameworks now capture this interdependency, two of which arose specifically from an interprofessional context. D’Amour and Oandasan (2005) constructed a detailed graphic to illustrate interdependencies between health professional education and interprofessional collaborative practice, in the service of patient needs and community-oriented care [see figure 1].

FIGURE 1: Interprofessionality as the field of interprofessional practice and interprofessional education: An emerging concept.


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The WHO Study Group on Interprofessional Education and Collaborative Practice developed a global Framework for Action on Interprofessional Education and Collaborative Practice (WHO, 2010) and a graphic that shows the goal of interprofessional education as preparation of a “collaborative practice-ready” workforce, driven by local health needs and local health systems designed to respond to those needs [see figure 2].

**FIGURE 2: Framework for Action on Interprofessional Education & Collaborative Practice**

The WHO Framework highlights curricular and educator mechanisms that help interprofessional education succeed, as well as institutional support, working culture, and environmental elements that drive collaborative practice. The framework incorporates actions that leaders and policymakers can take to bolster interprofessional education and interprofessional collaborative practice for the improvement of health care. At the national level, positive health professions education and health systems actions are pointed to that could synergistically drive more integrated health workforce planning and policymaking.

Recently, the Commission on Education of Health Professionals for the 21st Century (Frenk et al., 2010) published an analysis of the disjunctions between traditional health professions education and global health and health workforce...
needs. Working from ideas of global social accountability and social equity, the commission proposed a series of recommendations to reform health professions education to prepare a global health workforce that is more responsive to actual population and personal health needs adapted to local contexts. A graphic depicts these interrelationships [see figure 3]. An important aspect of this report is the strong integration of public health preparation in the education of future heath care professionals. The “promotion of interprofessional and transprofessional education that breaks down professional silos while enhancing collaborative and non-hierarchical relationships in effective teams” (Frenk et al., p. 1,951) is one of 10 recommendations by the commission for preparing future health professionals to more adequately address global health needs and strengthen health systems.

**FIGURE 3: Health professionals for a new century: Transforming education to strengthen health systems in an interdependent world**

Developers of these three frameworks target interprofessional education as a means of improving patient-centered and community-/population-oriented care. They situate interprofessional education and health professions education, in general, in a dynamic relationship with health care systems that are more responsive to the health needs of the populations they are designed to serve.
The Competency Approach to Health Professions Education and Interprofessional Learning

Competency-based approaches to interprofessional education have developed in parallel to competency-based approaches within the health professions. These have emerged in response to the limitations of learning outcomes related to knowledge-and attitude-based methods (Barr, 1998).

Appendix 1 of the National Interprofessional Competency Framework for Canada provides an excellent summary of four different competency-based approaches, applied to interprofessional education competencies (Canadian Interprofessional Health Collaborative [CIHC], 2010), drawing on the work of Roegiers (2007). The CIHC adopted the integrated framework advocated by Peyser, Gerard, and Roegiers (2006), which emphasizes not only the competency outcomes themselves but also the educational processes that integrate knowledge, skills, attitudes, and values in the demonstration of competencies. The dual charge from IPEC to the expert panel to “recommend a common core set of competencies relevant across the professions to address the essential preparation of clinicians for interprofessional collaborative practice” and to “recommend learning experiences and educational strategies for achieving the competencies and related objectives” is consistent with an integrated approach to interprofessional education competency development and assessment. From a pre-licensure perspective, a core interprofessional competency approach emphasizes essential behavioral combinations of knowledge, skills, attitudes, and values that make up a “collaborative practice-ready” graduate (WHO, 2010).
Barr (1998) distinguished between types of competence from an interprofessional perspective [see figure 4]. According to Barr, “common” or overlapping competencies are those expected of all health professionals. It may be more helpful to think in terms of competencies that are common or overlapping more than one health profession but not necessarily all health professions. This can be the source of interprofessional tensions, such as in the debate about overlapping competencies between primary care physicians and nurse practitioners. The overlap may be a strategy to extend the reach of a health profession whose practitioners are inaccessible for various reasons. For example, a policy statement has called attention to the preventive oral health care role of pediatricians in primary care (American Academy of Pediatrics, 2008); and dental programs recognize that a dentist may be the “first line of defense” for not only oral but also some systemic diseases (Wilder et al., 2008). “Complementary” competencies enhance the qualities of other professions in providing care. Thus, while in this example dentists and pediatricians identify useful overlap in their roles consistent with their scope of practice, dentists and pediatricians mostly have complementary expertise. “Collaborative” competencies are those that each profession needs to work together with others, such as other specialties within a profession, between professions, with patients and families, with non-professionals and volunteers, within and between organizations, within communities, and at a broader policy level. Interprofessional collaborative competencies are the focus of this report.

FIGURE 4: Barr’s (1998) three types of professional competencies
Developing Interprofessional Education Competencies for Interprofessional Collaborative Practice in the U.S.

Our report examines the further development of the core competency—work in interdisciplinary teams—identified in the 2003 IOM report. Although the IOM report named the key processes of communication, cooperation, coordination, and collaboration in teamwork, the interprofessional competencies that underpin these processes were not defined. Also important to the elaboration of teamwork competencies are the interrelationships with the other four IOM core competencies (see Figure 5). Provision of patient-centered care is the goal of interprofessional teamwork. The nature of the relationship between the patient and the team of health professionals is central to competency development for interprofessional collaborative practice. Without this kind of centeredness, interprofessional teamwork has little rationale. The other three core competencies, in the context of interprofessional teamwork, identify 21st-century technologies for teamwork communication and coordination (i.e., informatics), rely on the evidence base to inform teamwork processes and team-based care, and highlight the importance of continuous improvement efforts related to teamwork and team-based health care.

FIGURE 5: Interprofessional Teamwork and IOM CORE COMPETENCIES
Core Competencies for Interprofessional Collaborative Practice

National and international efforts prior to this one have informed the identification of interprofessional competency domains in this report (Buring et al., 2009; CIHC, 2010; Cronenwett et al., 2007, 2009; Health Resources and Services Administration/Bureau of Health Professions, 2010; Interprofessional Education Team, 2010; O’Halloran, Hean, Humphris, & McLeod-Clark, 2006; Thistlethwaite & Moran, 2010; University of British Columbia College of Health Disciplines, 2008; University of Toronto, 2008; Walsh et al., 2005). A number of U.S. universities who had begun to define core interprofessional competencies shared information on their efforts to define competency domains. [A list of universities is included at the end of the report.]

Although the number of competency domains and their categorization vary, we found convergence in interprofessional competency content between the national literature and global literature, among health professions organizations in the United States, and across American educational institutions. Interprofessional competency domains we identified are consistent with this content. In this report, we identify four interprofessional competency domains, each containing a set of more specific competency statements, which are summarized in the following graphic [see figure 6].

FIGURE 6: Interprofessional Collaborative Practice Domains

The Learning Continuum pre-licensure through practice trajectory
Interprofessional Collaborative Practice Competency Domains

- Competency Domain 1: Values/Ethics for Interprofessional Practice
- Competency Domain 2: Roles/Responsibilities
- Competency Domain 3: Interprofessional Communication
- Competency Domain 4: Teams and Teamwork
Competency Domain 1: Values/Ethics for Interprofessional Practice

**Background and Rationale:** Interprofessional values and related ethics are an important, new part of crafting a professional identity, one that is both professional and interprofessional in nature. These values and ethics are patient centered with a community/population orientation, grounded in a sense of shared purpose to support the common good in health care, and reflect a shared commitment to creating safer, more efficient, and more effective systems of care. They build on a separate, profession-specific, core competency in patient-centeredness. Without persons who are sometimes patients and their families as partners in the team effort, the best interprofessional teamwork is without rationale. Teamwork adds value by bringing about patient/family and community/population outcomes that promote overall health and wellness, prevent illness, provide comprehensive care for disease, rehabilitate patients, and facilitate effective care during the last stages of life, at an affordable cost.

Health professions educators typically consider values and ethics content an element of professionalism, which has significant overlap with constructs of humanism and morality (Baldwin, 2006). “Old” approaches to professionalism have been criticized as being self-serving and are seen as creating barriers between the professions and impeding the improvement of health care (Berwick, Davidoff, Hiatt & Smith, 2001; IOM, 2001; McNair, 2005). “New” approaches are oriented toward helping health professions students develop and express values that are the hallmark of public trust, meaning the “other side” of professionalism (Blank, Kimball, McDonald & Merino, 2003; McNair, 2005). These values become a core part of one’s professional identity, and Dombeck (1997) has labeled the moral agency associated with that identity as “professional personhood.” However, the “new” professionalism in health professions education needs further development in the context of interprofessional collaborative practice, leading to several different approaches.

The first is a “virtues in common” approach (McNair, 2005) that draws on the work of Stern (2006) and others and is represented by the Interprofessional Professionalism Collaborative. The group defines “interprofessional professionalism” as

> “Consistent demonstration of core values evidenced by professionals working together, aspiring to and wisely applying principles of altruism, excellence, caring, ethics, respect, communication, [and] accountability to achieve optimal health and wellness in individuals and communities”

(Interprofessional Professionalism Collaborative, 2010).

A second approach suggests ethical principles for everybody in health care to hold in common, recognizing the multidisciplinary nature of health delivery systems. This approach has been developed by the Tavistock group (Berwick et al., 2001), which noted that the problems of health systems are fundamentally ethical. The principles consider health and health care a right. They support
balance in the distribution of resources for health to both individuals and populations; comprehensiveness of care; responsibility for continuous efforts to improve care; safety of care; openness in care delivery; and cooperation with those who receive care, among those who deliver care, and with others outside direct health care delivery. Cooperation is seen as the central principle.

A **third** approach, and the one adopted for this expert panel report, focuses on the values that should undergird relationships among the professions, joint relationships with patients, the quality of cross-professional exchanges, and interprofessional ethical considerations in delivering health care and in formulating public health policies, programs, and services.

Mutual respect and trust are foundational to effective interprofessional working relationships for collaborative care delivery across the health professions. At the same time, collaborative care honors the diversity that is reflected in the individual expertise each profession brings to care delivery. Gittell captured this link between interprofessional values and effective care coordination when she described the nature of relational coordination in health care: “Even timely, accurate information may not be heard or acted upon if the recipient does not respect the source” ((2009, p. 16).

Interprofessional ethics is an emerging aspect of this domain. This literature explores the extent to which traditional professional values, ethics, and codes need to be rethought and re-imagined as part of interprofessional collaborative practice. A common example has to do with the confidentiality of the practitioner-patient relationship in team-based care delivery. Important discussions are emerging in this area (Banks et al., 2010; Clark, Cott & Drinka, 2007; Schmitt & Stewart, 2011).

This competency domain is variously represented in other interprofessional competency frameworks. A key difference is whether values are integrated into other competencies as the attitude/value dimension of those competencies (e.g., QSEN competencies in nursing, Cronenwett et al., 2007, 2009 and A National Interprofessional Competency Framework-CIHC, 2010) or represented as a separate competency (e.g., University of Toronto IPE Curriculum, University of Toronto, 2008). The fact that each health profession has educational and accreditation requirements around professionalism creates an opportunity for curricular integration of interprofessional competencies related to values and ethics (University of Minnesota, Academic Health Center, Office of Education,2009), as well as the opportunity for accreditors to evaluate their presence and update requirements around professionalism to explicitly incorporate interprofessional values and ethics.
General Competency Statement-VE. Work with individuals of other professions to maintain a climate of mutual respect and shared values.

Specific Values/Ethics Competencies:

VE1. Place the interests of patients and populations at the center of interprofessional health care delivery.

VE2. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of team-based care.

VE3. Embrace the cultural diversity and individual differences that characterize patients, populations, and the health care team.

VE4. Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions.

VE5. Work in cooperation with those who receive care, those who provide care, and others who contribute to or support the delivery of prevention and health services.

VE6. Develop a trusting relationship with patients, families, and other team members (CIHC, 2010).

VE7. Demonstrate high standards of ethical conduct and quality of care in one's contributions to team-based care.

VE8. Manage ethical dilemmas specific to interprofessional patient/population centered care situations.

VE9. Act with honesty and integrity in relationships with patients, families, and other team members.

VE10. Maintain competence in one's own profession appropriate to scope of practice.

“We all have a moral obligation to work together to improve care for patients.”

(Pronovost & Vohr, 2010, p. 137)
**Competency Domain 2: Roles/Responsibilities**

**Background and Rationale:** Learning to be interprofessional requires an understanding of how professional roles and responsibilities complement each other in patient-centered and community/population oriented care. “Front line” health professionals (Suter et al., 2009) have identified being able to clearly describe one’s own professional role and responsibilities to team members of other professions and understand others’ roles and responsibilities in relation to one’s own role as a core competency domain for collaborative practice. This domain is an explicit feature in most interprofessional competency frameworks (Thistlethwaite & Moran, 2010; WHO, 2010; CIHC, 2010; Cronenwett et al., 2007; University of Toronto, 2010).

“Variety diversity”—or categorical differences among team members—presents both a resource and a problem for teamwork in health care (Edmondson & Roloff, 2009). Diversity of expertise underpins the idea of effective teams. Diversity of background or cultural characteristics also adds to teamwork resources. Yet, stereotyping, both positive and negative, related to professional roles and demographic/cultural differences affect the health professions (Hean, in press). These stereotypes help create ideas about a profession’s worth known as “disparity diversity” (Edmondson & Roloff), eroding mutual respect. Inaccurate perceptions about diversity prevent professions from taking advantage of the full scope of abilities that working together offers to improve health care.

The need to address complex health promotion and illness problems, in the context of complex care delivery systems and community factors, calls for recognizing the limits of professional expertise, and the need for cooperation, coordination, and collaboration across the professions in order to promote health and treat illness. However, effective coordination and collaboration can occur only when each profession knows and uses the others’ expertise and capabilities in a patient-centered way.

Each profession’s roles and responsibilities vary within legal boundaries; actual roles and responsibilities change depending on the specific care situation. Professionals may find it challenging to communicate their own role and responsibilities to others. For example, Lamb et al. (2008) discovered that staff nurses had no language to describe the key care coordination activities they performed in hospitals. Being able to explain what other professionals’ roles and responsibilities are and how they complement one’s own is more difficult when individual roles cannot be clearly articulated. Safe and effective care demands crisply defined roles and responsibilities.

Team members’ individual expertise can limit productive teamwork across the professions. Collaborative practice depends on maintaining expertise through continued learning and through refining and improving the roles and responsibilities of those working together.
General Competency Statement-RR. Use the knowledge of one’s own role and those of other professions to appropriately assess and address the healthcare needs of the patients and populations served.

Specific Roles/Responsibilities Competencies:

RR1. Communicate one’s roles and responsibilities clearly to patients, families, and other professionals.

RR2. Recognize one’s limitations in skills, knowledge, and abilities.

RR3. Engage diverse healthcare professionals who complement one’s own professional expertise, as well as associated resources, to develop strategies to meet specific patient care needs.

RR4. Explain the roles and responsibilities of other care providers and how the team works together to provide care.

RR5. Use the full scope of knowledge, skills, and abilities of available health professionals and healthcare workers to provide care that is safe, timely, efficient, effective, and equitable.

RR6. Communicate with team members to clarify each member’s responsibility in executing components of a treatment plan or public health intervention.

RR7. Forge interdependent relationships with other professions to improve care and advance learning.

RR8. Engage in continuous professional and interprofessional development to enhance team performance.

RR9. Use unique and complementary abilities of all members of the team to optimize patient care.

“…teamwork requires a shared acknowledgement of each participating member’s roles and abilities. Without this acknowledgement, adverse outcomes may arise from a series of seemingly trivial errors that effective teamwork could have prevented.”

(Baker et al., 2005b, p. 14)
Competency Domain 3: Interprofessional Communication

“When I was in medical school I spent hundreds of hours looking into a microscope—a skill I never needed to know or ever use. Yet, I didn’t have a single class that taught me communication and teamwork skills—something I need every day I walk into the hospital.”

(Pronovost & Vohr, 2010, p. 46)

Background and Rationale: In Suter et al.’s (2009) study, front-line health professionals identified communication as the second core competency domain, and in most competency frameworks communication is considered a core aspect of interprofessional collaborative practice. Developing basic communication skills is a common area for health professions education (e.g., AAMC, 1999), but health professions students often have little knowledge about or experience with interprofessional communication. More than a decade ago, an AAMC report on communication in medicine acknowledged the importance of being able to communicate effectively with “other members of the healthcare team, given the movement toward better integrated care” (AAMC, 1999, p. 6).

Communication competencies help professionals prepare for collaborative practice. Communicating a readiness to work together initiates an effective interprofessional collaboration. In a qualitative study of nurses’ and resident physicians’ definitions of collaboration (Baggs & Schmitt, 1997), respondents cited the ways in which health professionals communicate a readiness to work together. They named being available in place, time, and knowledge, as well as being receptive through displaying interest, engaging in active listening, conveying openness, and being willing to discuss as elements indicating readiness.

Using professional jargon creates a barrier to effective interprofessional care. A common language for team communication is a core aspect of the TeamSTEPPS team training program, which endorses practices such as SBAR, call-out, and check-back, whose aim is communication that is clearly understood (Agency for Healthcare Research and Quality, n.d.).

An important part of language is literacy, both general reading literacy and health literacy. Both play a part in teamwork and patient-centered care. Presenting information that other team members and patients/families can understand contributes to safe and effective interprofessional care.

One of the five IOM core competencies (IOM, 2003) is the ability to use informatics. Teamwork and team-based competency for better patient-centered care requires mastery of numerous new communication technologies.

Professional hierarchies created by demographic and professional differences are common but create dysfunctional communication patterns working against effective interprofessional teamwork. Further, considerable literature related to safe care now focuses on overcoming such communication patterns by placing responsibility on all team members to speak up in a firm but respectful way when they have concerns about the quality or safety of care. However, these communication patterns keep professionals from sharing their expertise across professional lines more generally. Learning to give and receive timely, sensitive, and instructive feedback with confidence helps health professionals improve their teamwork and team-based care.
Learning to work together to communicate and manage emotionally difficult information with patients and families, such as end-of-life information, or error disclosures requires openness, understanding, and an ability to convey messages in a sensitive and respectful manner.

**General Competency Statement-CC. Communicate with patients, families, communities, and other health professionals in a responsive and responsible manner that supports a team approach to the maintenance of health and the treatment of disease.**

**Specific Interprofessional Communication Competencies:**

**CC1.** Choose effective communication tools and techniques, including information systems and communication technologies, to facilitate discussions and interactions that enhance team function.

**CC2.** Organize and communicate information with patients, families, and healthcare team members in a form that is understandable, avoiding discipline-specific terminology when possible.

**CC3.** Express one’s knowledge and opinions to team members involved in patient care with confidence, clarity, and respect, working to ensure common understanding of information and treatment and care decisions.

**CC4.** Listen actively, and encourage ideas and opinions of other team members.

**CC5.** Give timely, sensitive, instructive feedback to others about their performance on the team, responding respectfully as a team member to feedback from others.

**CC6.** Use respectful language appropriate for a given difficult situation, crucial conversation, or interprofessional conflict.

**CC7.** Recognize how one’s own uniqueness, including experience level, expertise, culture, power, and hierarchy within the healthcare team, contributes to effective communication, conflict resolution, and positive interprofessional working relationships (University of Toronto, 2008).

**CC8.** Communicate consistently the importance of teamwork in patient-centered and community-focused care.

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> Communicating refers to aspects of openness, style, and expression of feelings and thoughts. These communications are directed specifically at modifying teamwork aspects. Team-related communications exploit opportunities that influence team interactions, organization, and functioning. 

(Essens et al., 2009)
Competency Domain 4: Teams and Teamwork

“An essential component of patient-centered primary care practice is interprofessional teamwork. High-functioning teams require collaboration between physicians, nurses, pharmacists, social workers, clinical psychologists, case managers, medical assistants, and clinical administrators…”

(Department of Veterans Affairs, August 26, 2010, p. 2)

**Background and Rationale:** Learning to be interprofessional means learning to be a good team player. Teamwork behaviors apply in any setting where health professionals interact on behalf of shared goals for care with patients or communities. Teamwork behaviors involve cooperating in the patient-centered delivery of care; coordinating one’s care with other health professionals so that gaps, redundancies, and errors are avoided; and collaborating with others through shared problem-solving and shared decision making, especially in circumstances of uncertainty. These processes reflect increasing levels of interdependence among those embedded in teams, in microsystems like hospital units, or in and between organizations and communities.

Learning to work in teams entails becoming a part of a small and complex system that is organized to share the care of a person or a population. Involvement as a team member is based on the value of the professional expertise added that can contribute to the outcomes of care in specific situations. Understanding how team developmental processes can affect team members, overall team functioning, and outcomes of team-based care is an important part of being an effective team member.

A potential source of conflict among team members is the diversity of their expertise areas and professional abilities. Conflicts may arise over leadership, especially when status or power is confused with authority based on professional expertise. Whatever the source, staying focused on patient-centered goals and dealing with the conflict openly and constructively through effective interprofessional communication and shared problem-solving strengthen the ability to work together and create a more effective team.

Strong leaders in team-based care want to satisfy patient and community needs, and they value all team members’ potential contributions in meeting those needs. Leaders interact with team members in ways that draw out potential contributions and build support for working together through an understanding of the dynamics of the team (Zaccaro, Heinen, & Shuffler, 2009).

Working in teams involves sharing one’s expertise and relinquishing some professional autonomy to work closely with others, including patients and communities, to achieve better outcomes. Shared accountability, shared problem-solving, and shared decision are characteristics of collaborative teamwork and working effectively in teams. Valuing working with others to deliver patient-centered care that is community/patient-oriented, being clear about one’s own and others’ roles and responsibilities, and practicing interprofessional communication contribute importantly to teamwork behaviors and effective team functioning.

Quality improvement tools can improve teamwork processes and aid in the design and functioning of team-based care to enhance outcomes for patients and communities. How to improve teamwork behaviors, understanding how teams
work, and determining what makes teams effective are rich areas of research (e.g., Salas, Goodwin, & Burke, 2009) that are expanding the evidence base. As this evidence develops it can be used to inform more effective teamwork and team-based care.

**General Competency Statement-TT.** Apply relationship-building values and the principles of team dynamics to perform effectively in different team roles to plan and deliver patient-/population-centered care that is safe, timely, efficient, effective, and equitable.

**Specific Team and Teamwork Competencies:**

**TT1.** Describe the process of team development and the roles and practices of effective teams.

**TT2.** Develop consensus on the ethical principles to guide all aspects of patient care and team work.

**TT3.** Engage other health professionals—appropriate to the specific care situation—in shared patient-centered problem-solving.

**TT4.** Integrate the knowledge and experience of other professions—appropriate to the specific care situation—to inform care decisions, while respecting patient and community values and priorities/preferences for care.

**TT5.** Apply leadership practices that support collaborative practice and team effectiveness.

**TT6.** Engage self and others to constructively manage disagreements about values, roles, goals, and actions that arise among healthcare professionals and with patients and families.

**TT7.** Share accountability with other professions, patients, and communities for outcomes relevant to prevention and health care.

**TT8.** Reflect on individual and team performance for individual, as well as team, performance improvement.

**TT9.** Use process improvement strategies to increase the effectiveness of interprofessional teamwork and team-based care.

**TT10.** Use available evidence to inform effective teamwork and team-based practices.

**TT11.** Perform effectively on teams and in different team roles in a variety of settings.

“**As preparation for collaborative practice, the interprofessional education of teams is seen as a key implementation strategy for certain phases of the Healthy People 2020 Education for Health framework”... interprofessional education with an emphasis on prevention will not only greatly assist with achieving the Healthy People objectives ...but also help prepare the next generation of health professionals to better address preventable health problems.**”

(Evans, Cashman, Page, & Garr, 2011)
The individual competencies we have identified under the four core competency domains can be thought of as behavioral learning objectives to be achieved by the end of pre-licensure or pre-certification education. They are linked to learning activities and assessments of the effectiveness of those activities in achieving the objectives.

For example, the University of Virginia identified five core interprofessional competencies: communication, professionalism, shared problem-solving, shared decision making, and conflict resolution. They have written four learning objectives for each of these competencies that have parallels to our individual competency statements. For their core competency of professionalism, for example, a learning objective is “to display interest, trust, and mutual respect across the professions” (University of Virginia, n.d.). When educators began the development of their interprofessional curriculum, they asked faculty to identify the learning activities they already provided that addressed this and other interprofessional learning objectives, and whether/how they assessed their achievement. They began to build the interprofessional learning program from this identified base of activities.

A similar approach was taken in illustrating example learning objectives for meeting the five IOM core competencies within pharmacy. For the topic of “interprofessional team roles and responsibilities and professionalism” sample learning objectives were: “Describe individual roles and responsibilities” and “demonstrate consensus building within a team” (Buring et al., 2009). Learning objectives can focus on knowledge, skills, and values/attitudes that are thought to lead to competency in a staged way.

A great variety of activities developed explicitly for interprofessional learning are being used, but may not have been linked explicitly to achievement of interprofessional competencies. Other activities, such as international learning experiences, are almost always interprofessional, but typically have not been viewed through this lens. Opportunities to exploit existing learning experiences for learning interprofessional competencies, such as students from different professions being co-located in the same clinical setting at the same time, often have not been pursued.

In many instances, interprofessional learning activities are still aimed primarily at exposure to students from other professions. Educators assess interprofessional experiences at the level of learner reactions, attitudes and perceptions, knowledge or skill. Modifying a framework from Kirkpatrick (1967), Barr, Koppel, Reeves, Hammick & Freeth (2005) documented a predominance of positive learning outcomes of these types in the 107 studies that met the team’s quality criteria. Mainly “college-led” activities produced these results, which suggest that some of the elements that make up competency development can be achieved in educational settings. Learner behavior change, the primary goal of competency development, occurred less frequently but followed from both college and service-
led learning. Organizational change and clinical outcomes were more commonly associated with practice-based interprofessional learning by practitioners. These data convey the importance of student learning in the clinical setting for practical learning, practice change, and patient-centered outcomes. They reinforce the value of purposive engagement between education and practice for building competency, as this report emphasizes.

Much remains to be understood about the optimum ways to assist students to learn interprofessional competencies. How particular activities nurture the values, knowledge or skills that undergird one or more of these competencies needs to be made explicit. A critical aspect involves the choice of learning pedagogies. A variety of adult learning characteristics are relevant including active (versus passive) learning, self-directed (versus faculty-directed) learning, and situated (versus classroom) learning. Recommendations for rethinking pedagogies used in undergraduate medical education toward more active, clinically integrated and developmentally progressive learning (Cooke, Irby & O’Brien, 2010) are also key to interprofessional learning.

Other factors play a part in design as well. One is appropriateness for the stage of pre-licensure/pre-credentialing professional education: early in education versus late in education, pre or non-clinical versus clinical, for example. Certain activities lend themselves to learning that can incorporate students at different stages simultaneously. Faculty should contemplate some additional questions: Are the activities individually oriented or population-based? Do they contribute to learning in a variety of clinical and community settings? Do they foster engagement with students from other professions? Are they short-term or longitudinal activities? Is the activity required or elective learning? Is the learning provided in separate courses or as “threads” in the curriculum? Are the students given flexibility of learning choices or expected to follow a rigid structure to achieve interprofessional competencies?

The relevance of the learning activities to the real and changing world of interprofessional collaborative practice will ultimately determine how useful the experiences are to students as they move forward in their careers.

New educational technologies such as online learning, distance technologies, networking innovations, and simulation approaches are overcoming traditional barriers to interprofessional learning related to time and space (Weinstein et al., 2010). Use of these learning technologies can help model the real world of practice, especially in communities, where teamwork often happens asynchronously across time and space. For example, Western University of Health Sciences plans to experiment with asynchronous, community-based approaches to interprofessional learning in the third phase of their new interprofessional education program to be piloted in the next academic year (Aston, 2011).
Learning Activities, Examples

The design and implementation of interprofessional learning activities in the U.S. is exploding and there are many, many excellent examples of these activities that could have been chosen as illustrations. It is also the case that there is a low level of awareness and a lack of a “clearinghouse” at a national level for sharing information on the design, implementation and assessment of these interprofessional learning activities.

**Example A.** The Jefferson Health Mentors Program is a two-year longitudinal interprofessional learning experience required early in the program of study in which student teams from medicine, nursing, pharmacy, physical therapy, occupational therapy, or couples and family therapy are paired with a Health Mentor, usually an older adult with one or more chronic illnesses living in the community, as their teacher. The overarching learning objectives are that 1) students will understand the roles of their colleagues and be prepared to function as members of effective health care teams and 2) students will understand the point of view of individuals with chronic conditions and be prepared to provide patient-and family-centered care. From an interprofessional competency perspective, the program is clearly patient-centered with a community orientation, focuses on the understanding of the unique role of each profession in a team-based approach, and incorporates cultural competency, communication, and team-building exercises, with special emphasis given to working as part of a team.

The eight-module program for over 1,000 students in nested in existing health professions course shells, employs a combination of didactic and active, experiential learning, and uses reflective writing, team-based case studies, and faculty-facilitated team-based debriefings of experiences to solidify learning. The program has a rigorous assessment plan around the two core objectives (Collins et al., 2009).

**Example B.** The University of Washington is developing exportable educational programs to help students learn effective interprofessional communication. One focus of that training is interprofessional error disclosure. The training employs a combination of didactic presentations, role modeling demonstration of a clinical scenario using a standardized patient by an interprofessional group of faculty, and practice learning using simulation methods. Students from medicine, nursing, pharmacy, and dentistry are exposed to evidence-based information concerning the value of openness and honesty with patients and families when an error resulting in harm has occurred in their care, and instructed in the types of communication messages that patients expect to receive, including apologies. Students reflect on the scenario, including attending to the feelings associated with this difficult conversation. Then, interprofessional groups of students practice conducting an error disclosure in a simulation case scenario to immerse them in practical learning. During that scenario they may identify how their professions may be involved in creating safer environments to avoid such an error in the future. This exercise was completed by nearly 500 students in an All Professions Training Day (Gray, 2011).
This example is full of opportunities for evaluating specific behavioral learning objectives/competencies, especially around interprofessional values/ethics and communication. Competency development in the domain of values/ethics stresses placing patients or communities at the center of care; building a trusting relationship with patients, families and other team members; acting with honesty and integrity; managing ethical conflicts specific to interprofessional caregiving; and respecting the diversity of individual and cultural differences among patients, families and team members. Competency development in the domain of interprofessional communication stresses using respectful language, organizing and communicating information with patients, families and health team members in an understandable form, choosing effective communication tools and techniques, and communicating effectively in difficult situations.

**Example C.** Service learning projects are frequently used as values-based educational opportunities to help students develop person and patient-centered knowledge and skills with a community/population-orientation around the health and health care needs of the at risk, vulnerable, and underserved. There is an extensive literature on the service learning approach to education, and this approach is being applied more frequently in interprofessional education.

The extracurricular Urban Service Track at the University of Connecticut offers students from the schools of medicine, nursing, pharmacy and dentistry who are interested in primary care, and are at various points in their training, the opportunity to become Urban Health Scholars (Clark-Dufner, Gould, Dang, Goldblatt & Johnson, 2010). There are plans to add social work students in another cycle. The program was created and is supported by the Connecticut Area Health Education Center Program, located within the University of Connecticut Center for Public Health and Health Policy. Three principles common to all students participating are 1) interest in working with underserved patients, 2) a history of volunteerism, and 3) a commitment to learning and working in interprofessional health care teams. Interprofessional team building and leadership is one of 11 identified competency areas. These competency areas were identified in collaboration with primary care practitioners in the state caring for the urban underserved. Over a two-year period, students who are based at federally qualified community health centers or community health agencies participate in a variety of learning activities chosen to help them develop the 11 identified competencies. These activities incorporate advocacy skills and the delivery of prevention and health promotion activities.
The idea of interprofessional learning as continual is consistent with the ACGME Medical Outcomes Project, where a “milestones” framework structures medical residency training. Milestones define more specific levels of performance to be expected in competency domains across three years of residency education (ACGME, March 23, 2010). New U.S. continuing education reports (e.g., American Association of Colleges of Nursing and Association of American Medical Colleges, 2010) indicate that interprofessional learning takes place beyond the pre-licensure, pre-credentialing period, particularly in the workplace. In the three-stage model in place at the University of British Columbia (Charles, Bainbridge, & Gilbert, 2010), the third stage is mastery and encompasses advanced level interprofessional learning experiences for graduate students.

Competency statements described in this report reflect the endpoint of initial health professional education (pre-licensure or pre-credentialing). Within the pre-licensure framework, educators have identified stages of interprofessional learning, and shaped interprofessional learning activities to these stages. A central part of choosing learning activities is a core interprofessional curriculum plan, which integrates required curricular components. For example, the University of Toronto (2008) uses a three-stage curriculum framework [see figure 7] of exposure, immersion, and competence in preparing health professions’ students for collaborative practice. The program culminates in the demonstration of the core competencies in clinical placement.

“…[A] capability can be defined as an integrated application of knowledge where the student or practitioner can adapt to change, develop new behaviors and continue to improve performance.”

(Walsh et al. pp. 232-233)
FIGURE 7: A Framework for the Development of Interprofessional Education Values and Core Competencies

EXPOSURE: Introduction

Knowledge
- Describe own role, responsibilities, values and scope of practice effectively to client/patient/family and other professionals.
- Describe interprofessional practice theory with respect to the science and theories behind teamwork.
- Describe the context and culture of the interprofessional (IP) environment that facilitates or inhibits collaboration, and its constraints.
- Identify instances where IP care will improve client/patient/family outcomes.

Skill / Behaviour
- Work collaboratively with others, as appropriate, to assess, plan, provide care/intervention and make decisions to optimize client/patient/family health outcomes and improve quality of care.
- Demonstrate leadership in advancing effective IP team function through a variety of strategies including, but not limited to:
  - Reflection
  - Promotion of effective decision-making.
  - Identification of factors that contribute to or hinder team collaboration, including power and hierarchy, flexibility and adaptability.
  - Able to assume diverse roles in their IP group and support others in their roles.
  - Establish and maintain effective IP working relationships/partnerships

EXPERIENCE: Development

Knowledge
- Recognize and understand how one’s own uniqueness, including power and hierarchy within the IP team, may contribute to effective communication and/or IP tension.
- Recognize and understand how the uniqueness of other team members, including power and hierarchy within the IP team, may contribute to effective communication and/or IP tension.

Skill / Behaviour
- Contribute to effective IP communication, including:
  - Giving and receiving feedback;
  - Addressing conflict or difference of opinions;
  - Self-reflection.

Attitude
- Awareness of and openness to utilize and develop effective IP communication skills.

APPLICATION: Entry-to-Practice

Knowledge
- Describe frameworks for ethical decision-making within an IP team.

Skill / Behaviour
- Guided by an ethics framework, contribute to IP ethical reasoning and decision-making.

Attitude
- Advance values including accountability, respect, confidentiality, trust, integrity, honesty and ethical behavior, equity as it relates to IP team functioning to maximize quality, safe patient care.

INTERPROFESSIONAL PARTNERSHIP AND COLLABORATIVE PRACTICE FOR OPTIMIZATION OF CLIENT/PATIENT HEALTH OUTCOMES

CONSTRUCTS

Collaboration
- Interprofessional (IP) theory
- Context and culture of the healthcare system
- Roles, responsibilities, accountabilities and scope of practice
- Decision-making/critical thinking
- Perform as an effective team member.
- Flexibility, cooperation, contribution, organization/efficiency, team health maintenance
- Self-reflection
- Change

Communication
- Listening
- Giving and receiving feedback
- Sharing information effectively
- Common language
- Dealing with conflict

Values and Ethics
- Relational-centred
- Diversity sensitive
- Interdependence
- Creativity/innovation

LEARNING CONTINUUM

Reflection, Learning and Formative Assessment

© Centre for Interprofessional Education, University of Toronto, 2009
The Medical University of South Carolina has made a commitment to the overall goal of ensuring that all health professions students there acquire interprofessional competencies. Four more specific goals drive a “learning spiral” conceptualized around two dimensions: building teamwork competencies through a sequence of “prepare, think, practice, and act” and transforming ways of knowing from absolute to transitional, independent, and contextual stages. The framework draws from several carefully selected approaches to adult learning (Blue, Mitcham, Smith, Raymond, & Greenberg, 2010; Medical University of South Carolina, 2007). As they progress through the four stages of the learning cycle, students acquire, apply and demonstrate their interprofessional teamwork competencies in increasingly complex learning settings [see figure 8].

FIGURE 8: Medical University of South Carolina conceptual framework for advancing interprofessional education.
The new 1Health program at the University of Minnesota dedicates three learning phases to three core interprofessional competency domains: professionalism/ethics, communication, and teamwork. Learning experiences culminate with students working in an interprofessional team to address a patient care, population health, or community problem. The expectation is that all students will achieve interprofessional competencies defined by the Academic Health Center prior to graduation (University of Minnesota, 2010; Josiah Macy Jr. Foundation, 2010).

A staged program focused on sequential learning approaches—didactic, simulation, and clinical—also is in place at the Western University of Health Sciences, where students from nine professions will cap a series of learning experiences with an interprofessional clinical practice stint in a hospital or community setting in the 2011-2012 academic year (Western University of Health Sciences, 2011).

An important element these programs share is that they use a full range of extracurricular activities to help students reach the competency goals.

As suggested by this sample of frameworks, for pre-licensure/pre-credentialing learning, interprofessional competencies ultimately are demonstrated through teamwork and team-based care in concrete clinical learning situations. Demonstration and honing these competencies require reflection, flexibility, and adaptability to the spectrum of care contexts—from prevention and health maintenance to acute, chronic, long-term and palliative care—and the overall goals of care in specific situations.

Interprofessional education now suffers from a lack of guidance from appropriate theories. The scope of this report precludes more than brief guidance in that area. Two recent sources are particularly helpful in considering appropriate theories to guide the design and implementation of interprofessional education. The first is a scoping review of theories, which have guided interprofessional learning, that might usefully be considered, or that may help assess what unstated theory informs a particular experience (Reeves et al., 2007). The second is an article by Sargeant (2009), which describes specific social and learning theories that capture the differences in the content and processes of interprofessional learning. Sargeant examines complexity theory, and theories related to social identity, professionalism, and stereotyping, as well as situated learning, communities of practice, reflective and experiential learning, and transformative learning. Cognitive theories, such as cognitive apprenticeship (Brandt, Farmer & Buckmaster, 1993) and the ecological approach to team cognition (Cooke, Gorman, & Rowe, 2009) set forth frameworks useful in interprofessional team-based learning.
Key Challenges to the Uptake and Implementation of Core Interprofessional Competencies

- **Institutional Level Challenges** – There is a lack of top administrative leadership support for adequate resources to create an interprofessional component to health professions students’ education. In institutions that implement systematic programs of interprofessional education top leadership support has been critical.

  **Positive Examples:** The Medical University of South Carolina chose the topic of interprofessional education for its 10-year Quality Enhancement Plan required for reaffirmation of accreditation by the Southern Association of Colleges and Schools. The University of Minnesota, Rosalind Franklin University, and Western University of Health Sciences are among the schools implementing institution-level interprofessional education programs with top administrative support.

- **The Lack of Institutional Collaborators** - Some schools interested in launching interprofessional learning have no other or limited professional schools in their institution to partner with, and some potential partners are unwilling to take on an interprofessional agenda.

  **Positive Example:** Vanderbilt University has reached out to two other universities to add pharmacy and social work students, enhancing the experience of the medical and nursing students, indeed all students, in the new Program in Interprofessional Learning.

- **Practical Issues** - Scheduling and finding time to bring students together across the professions remains an issue.

  **Positive Examples:** The University of California, San Francisco and Rosalind Franklin University have gone to a common calendar across programs.

- **Faculty Development Issues** - Health professions faculty need training to become effective interprofessional educators. The content and process of interprofessional learning differ from other academic content they teach.

  **Positive Examples:** The Medical University of South Carolina’s Faculty Development Institute is competitive throughout the University; and its promotion and tenure guidelines support involvement in interprofessional education. The University of Toronto has an annual interprofessional education faculty development program and consults with other institutions to assist in faculty development. The Western University of Health Sciences has explicitly trained faculty in interprofessional facilitation skills.
Core Competencies for Interprofessional Collaborative Practice
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- **Assessment Issues** - The need for assessment instruments to evaluate interprofessional competencies represents a “next step” in the development of competency-based interprofessional education for all stages of interprofessional learning. This work is in early stages of development.

  **Positive Example:** One example of work underway is the project described by Curran et al. (2009) in Canada to develop an Assessment Rubric for interprofessional collaborative competencies within the context of an Interprofessional Team Objective Structured Clinical Examination.

- **Lack of Regulatory Expectations** - Recognition by accrediting bodies of interprofessional competencies as vital to health professions educational programs reinforces the imperative to address it by faculty and institutional leaders.

  **Positive Examples:** The pharmacy profession at the national level has now integrated interprofessional learning expectations into curricula and accreditation. Eight accrediting organizations participating in the Accreditation of Interprofessional Health Education initiative supported by Health Canada have adopted shared principles and plan to pilot test a common program assessment tool to evaluate interprofessional education activities. (Accreditation of Interprofessional Health Education, 2009a, 2009b)

The challenges to bringing about transformational change in health professions education, which includes much stronger emphasis on “learning together to work together,” are real and will require creativity and commitment to overcome. However, positive changes, such as the examples described, indicate that many of the elements requiring change are “unfreezing”. Further, the support for such changes is coming from many different sectors. We are confident that 40 years from now calls for integrated interprofessional education for collaborative practice will not resonate with healthcare practitioners, as the IOM 1972 report does with today’s health professions educators. Every indication is that the time is now indeed right for transformational changes and, collectively, we are ready for action.

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Institute of Medicine
Educating for the Health Team
1972

“A major deterrent to our efforts to fashion health care that is efficient, effective, comprehensive, and personalized is our lack of a design for the synergistic interrelationship of all who can contribute to the patient’s well being. We face, in the next decade, a national challenge to redeploy the functions of health professions in new ways, extending the roles of some, perhaps eliminating others, but more closely meshing the functions of each than ever before.

There are organizational, political, ethical, and legal problems to be faced. But it is certain that in the coming process of reexamination the responsibility of the academic health centers and other educational institutions will be central. Can the provision of health care be improved by closer interaction of health professionals in new ways, and can the education of health professionals together facilitate the cooperative endeavors so urgently needed in practice?”

( IOM, pp. 4-5 )

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Scope of This Report

This report focuses on the charge the panel was given to identify individual-level interprofessional competencies for future health professionals in training. We wrote competency statements and identified learning activities relevant for the pre-licensure/pre-credentialing student. The report targets a specific aspect of health professions training focused on relationships among professions and with patients using a community/population-orientation. As such, it makes a specific, limited contribution to the larger arena of health professions education and health improvement. However, we hope that the competencies identified are general enough in language to articulate with and bolster interprofessional learning beyond the student level, as well as to spur needed educational research and evaluation.

Educators have raised challenges to educational approaches that frame outcomes in terms of competencies [Reeves, Fox & Hodges, 2010; ten Cate & Scheele, 2007; Walsh et al., 2005].

These include:
1) “parceling out” and reinforcing conventional boundaries of practice across the professions with potentially negative impact on the efforts to encourage more collaboration in practice;

2) unwieldy educational and evaluation processes brought about by too much specificity in professional competency expectations by multiple evaluators/regulators;

3) a reductionism that works against complex thinking needed for holistic responses to specific practice situations;

4) “freezing” competency expectations at a particular point in time, i.e., competency rather than capability, the latter increasing in complexity and sophistication over a lifetime professional learning trajectory in different clinical contexts;

5) lack of flexibility in practice contexts where overlapping practice boundaries and innovation can be responsive to shifting patient and population health needs;

6) difficulties with assessment of competencies.

In this report, we have made an effort to address, or at least recognize, these current or potential limitations.

By including public health in crafting the interprofessional competencies we acknowledge our increasing acceptance that real health improvement is a function of direct care providers and public health professionals working together to address environmental and social determinants of health, prevention, and early detection.
as well as the individualized components of treating illness. We break ground with modest beginnings as we all work out the nature of these relationships in broader approaches to improving health and health care.

The inclusion of systems knowledge is not explicit in the report. However, the recognition that interprofessional competencies are best learned and mastered over time in specific interprofessional learning contexts (clinical and non-clinical) around specific healthcare and health improvement goals is a fundamental message of the report.

The competencies we identified in this report do not address either the unique aspect of each health profession or the common clinical and public health knowledge base that health professionals share. We recognize that greater awareness of shared areas might lead to greater efficiencies in health professions education. The uniqueness of professional expertise is fundamental to teamwork and team-based care. We recognize the dynamic nature of this evolving knowledge base in a climate that increasingly values interdisciplinary/interprofessional translational research, and the ways this type of research will help close the gaps between research and practice going forward.

We recognize that the report is silent about the non-professional workers who have always been there to provide care on the “front lines”, such as home care and nursing home aides, community health workers and others in new roles being created. Their experiential knowledge base is critical to giving individualized care that is safe, efficient, and effective, and, accordingly, models need to be developed to recognize and value their role in teamwork and team-based care.

We also realize that other disciplines, more remote from direct health improvement initiatives, such as architects, engineers, librarians, and those in the humanities contribute in important ways to the overall quality of health and health care.

Finally, this report grew from the commitment of the six participating professional educational organizations to define interprofessional competencies for their professions. Our hope is that other professional education organizations, as well as a broader group of stakeholders in the quality of health professions education, will see the value of these competencies and adopt the recommendations in their own work. The most important stakeholders are persons who are sometimes patients and communities themselves that stand to benefit when health professions work together better to improve health and health care. Engaging other stakeholders will add broader scope and momentum to help transform the interprofessional education of health professionals for the future.
REFERENCES


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Core Competencies for Interprofessional Collaborative Practice
Report of an Expert Panel


McNair, R.P. The case for educating health care students in professionalism as the core content of interprofessional education. Medical Education, 39, 456-464.


APPENDIX
Interprofessional Education Collaborative, Expert Panel Charge, Process and Panel Participants

The following participating associations convened the expert panel to produce a report on core competencies for interprofessional collaborative practice: the American Association of Colleges of Nursing, the American Association of Colleges of Osteopathic Medicine, the American Association of Colleges of Pharmacy, the American Dental Education Association, the Association of American Medical Colleges, and the Association of Schools of Public Health. These six organizations formed an initial working group—the Interprofessional Education Collaborative (IPEC)—that produced a statement on interprofessional education collaboration in March 2009. This statement committed members to developing a common vision for how the respective professions could combine their unique abilities to deliver patient-centered team-based care, promote efforts to reform health care delivery and financing in line with that vision, and foster meaningful interprofessional learning experiences to support team-based care of the future. A framework of activities to support these goals was drafted in June 2009, including the identification of core competencies for interprofessional collaborative practice, current educational experiences, and curricular models.

Panel Charge

Each IPEC organization appointed two individuals to the expert panel and charged the panel to:

- Recommend a common core set of competencies relevant across the six professions to address the essential preparation of clinicians for interprofessional collaborative practice
- Recommend learning experiences and educational strategies for achieving the competencies and related objectives

The panel was asked to identify consensus working definitions of interprofessional education and interprofessional collaborative practice, as well as a functional meaning of competencies. The educational piece of how to assess interprofessional competencies is an important companion activity that will necessarily follow from the recommended set of core competencies.

Panel Process described

A core set of materials on interprofessional competencies and related frameworks provided the panel with a common starting point at the panel’s initial meeting at
the AAMC headquarters in Washington, D.C. on March 16, 2010. Over time and in step with fast developing educational and practice initiatives, the panel compiled additional resource material. This material came from new literature; expanded documentation of participating associations’ own competency development efforts; information about interprofessional competency development work from educational institutions linked to the American Interprofessional Health Collaborative network; Health Resources and Services Administration, Bureau of Health Professions consensus efforts (2010); and the collection of institutional examples of interprofessional education being implemented in universities throughout the U.S. and beyond, including the panelists’ own institutions.

Core competency domains were identified at an initial face-to-face meeting, after which the panel worked through conference calls and email exchanges to refine the competency domains, develop individual competency statements related to those domains, and engage in robust content development, the results of which are manifested in this final report. This work also reflects feedback on the draft competencies by invited attendees at a conference—“Interprofessional Team-based Competencies: Building a Shared Foundation for Education and Clinical Practice, held February 16-17, 2011, jointly sponsored by the Health Resources and Services Administration, Josiah Macy Jr. Foundation, Robert Wood Johnson Foundation, and American Board of Internal Medicine Foundation in collaboration with IPEC. Proceedings of that conference are published separately from this report.

Panel Participants

Madeline Schmitt, R.N., Ph.D., F.A.A.N. Professor Emerita, University of Rochester, School of Nursing (Panel Chair)

Sandra Carlin Andrieu, Ph.D., Associate Dean for Academic Affairs and Professor, Louisiana State University Health Sciences Center, School of Dentistry

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Kathleen Ann Long, R.N., Ph.D., F.A.A.N., Dean and Professor, University of Florida, College of Nursing

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Deanna Wathington, M.D., M.P.H., F.A.A.F.P., Associate Dean for Academic and Student Affairs, Office of Academic and Student Affairs, and Associate Professor, University of South Florida, College of Public Health

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The Expert Panel would like to thank the following institutions for sharing information about their interprofessional education programs for health professions students:

University of British Columbia
The University at Buffalo-SUNY
East Tennessee State University
Grand Valley State University
Indiana University
Jefferson College of Health Sciences
University of Kentucky
University of Minnesota
Medical University of South Carolina
Rosalind Franklin University of Medicine and Science
St. Louis University
University of Toronto
University of Virginia
University of Washington
Vanderbilt University
Western University of Health Sciences

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13.) 13. Could simulation be used to substitute for FW Level I? (multiple choice)  

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14.) 14. Could simulation be used to substitute for all or part of FW level II? (multiple choice)  

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Maturing of the Profession Task Group Report

The Maturing of the Profession Task Force was comprised of Gail Jense, PhD, PT, FAPTA; Christine Peters, PhD, OTR/L, FAOTA; Doris Pierce, PhD, OT, FAOTA, Kathlyn Reed, PhD, OT, FAOTA, MLIS; and S. Maggie Reitz, PhD, OTR/L, FAOTA. We met by conference call on five occasions to discuss the Ad Hoc Committee’s request to provide responses to five questions. These questions included:

1. What makes us unique?
2. What is our signature educational strategy?
3. Does the profession have “autonomy” in decision-making in practice?
4. How does the profession accept “power” and make decisions to move forward?
5. How do we do this?

Our deliberations began with discussions regarding the questions from a historical lens, philosophical and theoretical perspectives, as well as current and future fiscal, social, and geopolitical contexts. Through these discussions literature was identified for the group to read and assignments were made to draft background statements based on individual members’ expertise. Draft background statements were vetted and discussed further during subsequent conference calls. Draft recommendations were developed and presented at the Fall joint meeting of Program Directors and Fieldwork Administrators via PowerPoint slides. Feedback from this group was then discussed and considered in the deliberation and crafting of the final recommendations. Below you will see a summary of our recommendations for questions one through four. In addition, this set of 24 responses addresses question five. Attached to this summary are the background statements that were developed by task force members, upon which the recommendations were built. The background statements are organized by questions one through four with one joint reference list.

We thank you for the opportunity to address these questions and make recommendations.

1. What makes us unique?

   Recommendation 1. Harvest the potentials of the discipline of occupational science for occupational therapy through: research on occupation in relation to health and practice; increased critical conversations regarding the interrelationships of basic and applied research on occupation through the widening of the scope of publication venues; and research on and enhancements to occupation-centered education.
Recommendation 2. The profession should prepare for 2050, through research and education that is responsive to projected changes to occupations, lifestyles, cultures, health conditions, economics, ecology, and systems of health care, education, and research.

Recommendation 3. Shift to doctoral entry level by 2017, is recommended that the AOTA Executive Board determine the appropriate process for a realistic and expedient shift in entry level occupational therapy education by 2017.

Recommendation 4. Make the understanding of how change typically works and is effectively facilitated a core knowledge and competency of occupational therapists through: research and theory development in regard to occupational change, and improvements within educational programs to students’ understanding and competencies in facilitating change in clients’ occupational patterns.

2. What is our signature educational strategy?

Recommendation 5. Identify occupational therapy’s signature pedagogy through targeted educational research. Several professions have engaged in investigations exploring their identified signature pedagogies, that is, the characteristic forms for teaching and learning that are fundamental to professional preparation. These pedagogies are pervasive and routine as they cut across courses, programs, and institutions. The recent series of Carnegie studies provides three dimensions of preparation for professional work: surface level (concrete operational acts); deeper structural level (assumptions about how to impart the body of knowledge) and an implicit moral dimension revealing a set of beliefs about the profession. After the signature pedagogy has been identified, research then needs to be conducted to answer questions such as -- What is it about the signature pedagogy allows the professional to take these complex activities that are now routine (once learned) and internalize them?

Recommendation 6. Provide financial support to researchers to evaluate innovative models of education including workplace learning to identify what is effective and not effective in preparing students for future practice. Many professions are conceptualizing the workplace as a learning progression or curriculum that makes a transformative difference in the thinking and practice for both educators and students. Potential research questions include -- What dimensions optimize or inhibit workplace learning? What is unique about workplace learning in occupational therapy? What makes learning extraordinary?

Recommendation 7. Investigate the effectiveness and student outcomes of various teaching and learning strategies. Determine the right balance between more traditional teaching and learning, laboratory work and alternative methods of teaching and learning through distance education with pressures to educate more students and meeting workforce needs.
**Recommendation 8.** Engage in cross health professions investigations on education processes and outcomes centered on critical questions central to preparing and ensuring graduates are collaboration ready to provide competent, efficient care.

3. Does the profession have “autonomy” in decision-making in practice?

**Recommendation 9.** Professional autonomy is, and should be, an ongoing goal. As technical occupational therapy knowledge and skills and socioeconomic factors change, the need to re-examine the potential threats to professional autonomy arise and must be addressed to avoid deprofessionalization.

**Recommendation 11.** Vigilance is required at the local, state, national and international levels. Develop a monitoring system as occupational therapy is not immune to any of the technical practice) and socioeconomic factors that threaten professional autonomy.

**Recommendation 12.** Monitor major sources of threats such as changes in state and federal legislation (e.g., licensure laws and rules, trends in educational funding, state and federal regulations related to health insurance reimbursement); actions of other professions to change their scope of practice (e.g., medicine, physical therapy, speech language pathology, psychology, recreation, music, athletics, kinesiology, orthotics and prosthetics, and others); changes in organizational management of hospitals, clinics, and other organizations; changes in accreditation processes, credentialing mechanisms, and educational trends; changes and innovation in technology; changes in societal views regarding health and wellness; and social changes regarding the role and function of professions in society.

4. How does the profession accept “power” and make decisions to move forward?

**Recommendation 13.** Continue to evolve the profession in order to ethically take power versus waiting to accept power; this can be facilitated through AOTA increasing leadership development projects, enhancing curriculum content and developing mentorship strategies so that occupational therapy practitioners increasingly accept the positive influence and benefits of power.

**Recommendation 14.** Define and determine the type, scope, and focus for power in occupational therapy that is consistent with the philosophical and values bases of the profession.
**Recommendation 15.** *Increase grass roots opportunities and avenues for diversity in race/ethnicity, culture, and gender for leadership* laddering that are not limited to the few. Apply these models to educational, practice, organizational, and global settings.

**Recommendation 16.** *Re-evaluate innovative models from other professions* and semi professions in healthcare, and other industries to see how successful hyperchange has occurred.

**Recommendation 17.** *Address internal professional confusions and identify roles* for the greater good of occupational therapy and occupational science, without drawing rigid boundaries. Internal unbalance creates an external chaos that makes a profession more vulnerable to infringement.

**Recommendation 18.** *Identify gaining power as a foothold to the academic and service delivery market place* in the strategic plan.

**Recommendation 19.** *Seek non-traditional arenas to forge new opportunities for occupational therapy.*

**Recommendation 20.** *Expand autonomy through increased education.* Conduct a feasibility study by 2017 to study the ramifications and positive impacts of moving OTA education to bachelor’s degree entry. Also see Recommendation # 3.

**Recommendation 21.** *Increase breadth and depth of doctorate education and funding* to include research scientific tracks, practice evidence tracks, and expand post doctorate opportunities and internal professional funding for occupational therapists and occupational scientists.

**Recommendation 22.** *Increase political and jurisdictional power* by mentoring occupational therapy practitioners into running for local, state, and federal elected positions.

**Recommendation 23.** *Increase occupational therapy’s presence in business,* including Fortune 500 companies.

**Recommendation 24.** *Develop strategies to use power effectively to benefit clients* of all socioeconomic, cultural, and diverse backgrounds.

Respectfully submitted,

Gail Jenson, PhD, PT, FAPTA; Christine Peters, PhD, OTR/L, FAOTA; Doris Pierce, PhD, OT, FAOTA, Kathlyn Reed, PhD, OT, FAOTA, MLIS; and S. Maggie Reitz, PhD, OTR/L, FAOTA
Appendix A

Question 1: What makes occupational therapy unique?

Background and Literature Review by Doris Pierce, PhD, OTR/L, FAOTA

Occupation Makes Occupational Therapy Unique

Occupation is the Profession’s Defining Focus

What makes occupational therapy unique is its focus on occupation. That is, occupational therapy is named for, defined by, educated to understand, and professionally equipped to apply and remediate, human occupation. As a unique perspective on human life, development, health, and healing, occupation is occupational therapy’s unquestioned core. Again and again over its history, occupational therapy has experimented with new perspectives, differentiated its special contribution from that of other professions through collaborative service, incorporated additional perspectives, and extended itself into opportunities for practice within novel settings and populations. Always, this process has been demanding, even concerning, as the field’s focus on occupation is tested by exciting external trends, adaptation to new values and expectations for service, and expansion of its knowledge base. Always, occupational therapy returns to its core focus on occupation, further refined by its extensions into new applications (Kielhofner & Burke, 1977). Always, the view of the client is a perspective on occupational lives, losses, and goals, despite the therapist’s understanding of the pathologies with which the person is challenged (Pierce, in press).

Emergence of a Discipline
As occupational therapy has developed as a profession, it has searched for basic knowledge descriptive of occupation with which to inform practice. Some professions have found highly beneficial knowledge base matches in outside disciplines: engineering is well supported by physics, physical therapy by anatomy and kinesiology. Some disciplines have offered occupational therapy useful islands of knowledge that provide significant insights (i.e., neurology, anthropology). Unlike the close match that other professions have found with the knowledge bases of outside disciplines, occupational therapy has not found a discipline that is sufficiently focused on occupation or a closely related construct that can be counted on to strengthen knowledge-based practice to the degree that is found in the discipline/profession match of other health professions.

The audacious logic of Elizabeth Yerxa (1981, 1991a, 1991b, 1992, 1993, 1998, 2000a, 2000b; Yerxa et al., 1989) was this: if occupational therapy were to become a mature and independent profession, it must produce its own unique knowledge base. She then required faculty at the University of Southern California to begin that effort through the establishment of occupational science, beginning with the launch of a Ph.D. in Occupational Science in 1989 (Yerxa et al.). Since that time, occupational science has grown rapidly, as evidenced by the expanding numbers of occupational science articles, journals, books, societies, and Ph.D., Sc.D., and B.S. graduates (Glover, 2009; Molke, Laliberte-Rudman, & Polatajko, 2004; Pierce, in press). In occupational science, occupational therapy has undertaken the development of the knowledge base necessary to inform practice in regard to understanding occupation in human lives, relating occupation to constructs of other disciplines predicting typical occupational
patterns across development and populations, and insuring holistic occupation-based practice (Clark et al., 1991). The discipline demonstrates most of the hallmarks of a maturing discipline, although the final milestone of fully staffing academic departments with academics with terminal degrees in the discipline may not be reached for many years (Abbott, 1998, 2001, 2004). Not only is occupational science a unique disciplinary science, but the emergence of a new science from a predominantly female allied health profession is certainly an unusual development within the history of academic disciplines and professions. Even occupational therapy seems, at times, rather taken aback at this new science as a resource to practice, as accustomed as the profession has become to practicing from a patchwork and intuitive understanding of occupation in combination with a palette of models, standard approaches, techniques, and common sense. How to best infuse the early research products of occupational science into the education of practitioners is still a question very much under consideration.

**Occupational Therapy, Past and Future**

**A Unique History**

Another way of answering the question of what is unique about occupational therapy is to describe its distinctive history. Especially pertinent to the expansion of its knowledge base and practice capacities is the fact that the profession evolved in its earliest years within a bridging between the perspectives of mental health practice and physical rehabilitation practice. The stretching of the field’s approach to practice so that it effectively encompassed such diverse philosophies as are found in these differing settings has pulled occupational therapy toward more broad and holistic
conceptualizations of practice. In the 1980s, the addition of a large proportion of school-based practice had a similar effect of widening the approaches of therapists to include a more significant emphasis on learning and development.

Occupational therapy in the United States has developed in a way that is reflective of its context. Many factors have had positive influences: Army occupational therapy training programs created in response to the two World Wars, the disability rights movement, the Individuals with Disabilities Education Acts, and others. In some areas, such as mental health, occupational therapy has not developed extensive services, possibly due in part to the stigmatization of the mental health population in the U.S. Competition for vocation-focused services in the early period of the field may have resulted in limited involvement in that area as well. These client population gaps are not necessarily the case for occupational therapy in other countries. Certainly, the for-profit health care system of the U.S. has exerted such a powerful shaping influence on the field that we are challenged even to discern it. Comparisons of the historical development of occupational therapy in different nations would be likely to identify further distinguishing characteristics of occupational therapy as it is practiced in the U.S. Similarly, it would be useful to do a comparative history of the development of occupational therapy and other similarly-situated health professions in the U.S., such as social work or nursing.

Lastly, in terms of the unique history of occupational therapy, we would be remiss if we did not state the obvious: occupational therapy is a predominantly female profession. Why this is, or how it shapes us, we prefer not to delve further or speculate. It is included here only for completeness and the reader is referred to the extensive
literature in this area for a potentially fruitful set of insights into the uniqueness of occupational therapy that may be due to its deep connection to women’s values, customary occupations, and use or non-use of power in this culture.

**Preparing for the Future Beyond 2017**

The uniqueness of occupational therapy is shaped, not only by its past and present unfolding, but also by how it will engage the challenges and opportunities of the future. The American Occupational Therapy Association (AOTA) has completed commendable work to prepare for the future, using the vision statement for the 2017 anniversary of the profession to guide initiatives and decisions.

Luebben, Peters, Pierce, Price, and Royeen (2012) have proposed that occupational therapy should now begin planning for the year 2050. Changes to the earth, shifts in national and global demographics, increasing urbanization and poverty, globalization, and the emergence of new technologies will impact human occupations and, thus, occupational therapy and its clients (Luebkeman, 2009). The systems of science, health care, and education also will also undergo dramatic changes that will also impact occupational therapy. The unique future of occupational therapy will be shaped by the degree to which it welcomes, plans for, adapts to, and takes advantage of opportunities presented by these projected changes.

The intent of this paper is not to detail the many ways in which everyday occupations will be shaped by the future, or the ways in which occupational therapy will need to respond. For now, let the following sketch of occupational therapy’s future demonstrate the many possible ways that occupation focused services may be delivered in the future.
In the year 2050, occupational therapy will have retained its essential character through gradual and innovative change, co-evolving with a human culture that is diverse, elderly, urban, technological, globally-connected, ecologically-impacted, impoverished, and living collaboratively in non-kin groups. The mature discipline of occupational science will support practice that is focused on human flourishing, adaptable to all settings, and primarily serving elders. Presenting client issues will largely include chronic diseases, mental health needs and dementias, sleep disorders, ecological impacts on lifestyles, obesity, and failed adolescent transitions to adult work. Doctorate-prepared therapists will work globally and around the clock, communicate well across diversity, apply high and low tech technology, deliver services via tele-health, and frequently use group, population, and global approaches. Occupational therapy will apply a well-recognized philosophy of life in practice . . . blending an applied science with art of practice. (Luebben et al., 2012)

**When Will Occupational Therapy Move to the Doctoral Entry Level?**

At this point, it is clear that the move to a required doctoral entry level is in occupational therapy’s future. Societal need for occupational therapists who are well prepared for the following competencies is driven by the increasing complexity of, and demands on, the systems within which they practice: completely self-directed practice, negotiation of rapid change, policy and advocacy work, research, and leadership. Pragmatic concerns and occupational therapy’s tendency to cling to the status quo in all situations presently hold this key decision about the future of the profession in a state of limbo. Discussions of when to move forward are generally focused on detailing
impediments to that shift. The point usually missed in such considerations is that a slowed movement toward doctoral competencies has its costs in lost areas of service and decreased competitiveness, as the historical period of the profession’s slow move to master’s entry level clearly demonstrates in regard to the loss of mental health practice. Since it is clear that the future of occupational therapy will include doctoral entry, the remaining question becomes, simply, “When?”

**Occupational Change: A Key Competency Awaiting Development**

**Current Understandings of Facilitating Change in Occupation**

It is widely acknowledged that occupational therapists use occupation as their primary modality, or means of intervention, as well as their primary targeted outcome, or ends of intervention (Gray, 1998). To do so, therapists are centrally concerned with facilitating, inducing, supporting, and creating change in occupation capacities and patterns. That is, they support the increase in effective occupational functioning in everyday life. This therapist’s art and the client’s change in occupation have been referred to in many ways. Historically, it has most often been called adaptation. Taught strategies for facilitating a client’s occupational change have been termed task analysis, grading, chaining, skill development, adjustment, problem solving, design, and many other descriptors.

**Need for Theoretical and Empirical Development to Strengthen Change Competencies**

Although theorists have done important work within this conceptual area, the degree to which it has been developed is not reflective of the degree to which it is central to the field. Occupational therapist are expected, and somewhat prepared, to
enter chaotic and fluid life situations and make effective efforts to bring new patterns of organization and ability to the occupational lives of their clients. That is, they are expected to make occupational change. Not only are they expected to make change, but they are expected to do so in a manner led by the client. These are significant and highly valuable abilities of an occupational therapist, easily recognized in a master therapist. It is possible that the conceptual complexity of occupational change and the ways in which to effectively move a client from the initial to the desired occupational state has limited the degree to which this key area has been explicated. Despite these limitations, it is an essential skill which must be taught. Certainly, a wide variety of interdisciplinary theories and strategies are available to strengthen this area of occupational therapy education and practice (Gladwell, 2000; Rogers, 2003; Wheatley, 2006).

One Caveat

This response to the question of uniqueness, which has addressed occupation, occupational science, and occupational change, would not be complete without the following caveat. In recent years and in specific powerful influences, occupational therapy has narrowed its definition of desirable research to studies of clinical outcomes. The concern of this task group is that occupational therapy not be a “one trick pony,” abandoning its rich theoretical potential to ape medicine, secure grant dollars, and build university empires. Further, the level of cultural change faced with which the field and its clients will be faced in the near future calls for a broader response than can be provided by randomized controlled trials. Certainly evidence is needed, for better practice as well as to support the value of the profession in political domains.
Unfortunately, however, a single-minded valuing of this sole type of research can be expected to deter the development of descriptive, relational, and predictive research on occupation and its larger patterns, chill research that produces innovative practice, and deter historical research which is deeply informative to the profession. Although the current strong emphasis of evidence-based practice can be valuable in developing an understanding of occupation-based practice, it can also be detrimental, due to its tendency to reduce research questions to a focus on concepts more easily quantified than human occupation.
Appendix B

Question 2: What is our unique signature educational strategy?

Background and Literature Review by Gail Jensen, PhD, PT, FAPTA

Overview: Signature Pedagogy

What is a Signature Pedagogy?

Shulman (2005) argues if you want to understand a culture you study its nurseries. He makes a similar case for the professions. If you want to understand professional education and preparation you study the professional preparation environment. When you do this you uncover characteristic forms of teaching and learning that he calls - signature pedagogies. These signature pedagogies are pervasive and routine and cut across courses, programs, and institutions. Routine in this case means learning to do complex things in a routine manner (e.g., habits of mind focus in law, habits of heart focus in clergy); the signature pedagogy allows the professional to take these complex activities that are now routine (once learned) and internalize them.

The approaches or types of teaching done in professional education provide the organization for the fundamental ways that future practitioners are educated. Students (i.e., novices) are instructed in three core areas or dimensions of preparation for professional work: (a) to think;, (b) to perform, (c) to act with integrity. Professions vary in how much they emphasize these three dimensions. Law schools spend much more time on thinking and case law analysis and far less time on performance of activities or skills related to legal practice.

Key findings regarding signature pedagogies from the Carnegie Preparation for the Professions Studies, clergy,( Foster, Dahill, Goleman, &Tolentino, 2005), law
(Sullivan, Colby, Wegner, Bond, & Shulman, 2007), engineering (Sheppard, Macatangay, Colby, & Sullivan, 2008), nursing (Benner, Stuphen, Leonard, & Day, 2009), and medicine (Cooke, Irby, & O’Brien, 2010) follow:

- Shapes the character of future practice
- Symbolizes values and hopes of the professions
- Reveals the tensions that are part of professional preparation – demands of the academy vs demands of profession including multiple roles and expectations for professional practice
- Most fruitful to carefully observe the “pedagogies of the profession in action”

### Three Dimensions of Signature Pedagogy Compared across Law and Occupational Therapy

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<th>Surface Structure</th>
<th>Law</th>
<th>Occupational Therapy</th>
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<td>Definition</td>
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<tr>
<td>Concrete, operational acts of teaching and learning; includes showing and demonstrating, questioning and answering; interacting and withholding; approaching and withdrawing</td>
<td>Set of dialogues controlled by the teacher; authoritarian; most of exchanges go through the teacher; teacher controls pace, drives the questions, focuses on same student a number of times (Socratic method)</td>
<td>Occupational therapy has used a modified apprenticeship or relational learning approach based on relative close teacher-student relationships and case based methodology (case studies, case examples, storytelling, narratives, chart reviews). Textbooks and lectures describe conditions that result in loss or risk of loss of occupation and occupational performance (occupational dysfunction, occupational deprivation) and give case examples</td>
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<tr>
<td>Discussion centers on the law, texts used range from judicial opinions that provide precedent, contracts, settlements, testimonies and regulations</td>
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15
Legal principles provide organization and are exemplified by the text

Expectations for students that they know the law, engage in intensive verbal dialogue with teacher as they uncover the facts of the case and the principles that are all part of the interpretation

and techniques of how to develop, restore, or maintain client as an occupational being who can perform occupational activities and tasks in everyday life. Problem solving to gain clinical reasoning skills, is often based on ill-structured case examples in which there is no absolute right answer but rather a better answer based on the client’s situation and preferences. Laboratory classes stress active engagement through learning by doing. Laboratory tasks are designed 1) to provide opportunity to develop and practice skills demonstrated by the instructor, 2) experience and discuss affect and emotional reactions to task performance and contextual situations, and 3) share learning experiences with classmates in a safe, protected environment.

<table>
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<th>Deep Structure Definition</th>
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<th>Occupational Therapy</th>
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<td>Set of assumptions about how to best impart a</td>
<td>Underlying assertion is that what is being taught is the theory of the law</td>
<td>Occupational therapy is based on the assumption that engagement in occupation supports</td>
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<td>certain body of knowledge and know-how</td>
<td>and how to THINK like a lawyer; The law is not necessarily</td>
<td>(and is an integral part of) human</td>
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black and white but it is the process of analytic reasoning that is fundamental; legal theory includes confrontation of views and interpretations; the case dialogue and pedagogy is competitive and confrontational

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<th>Implicit Structure Definition</th>
<th>Example/legal</th>
<th>Occupational Therapy</th>
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| Moral dimension; set of beliefs about professional attitudes, values and dispositions | Tension in legal judgment which could be legally correct but not perceived as “fair”; in other words the focus is on learning the law and there is a distinction between legal reasoning and moral judgment; | Occupational therapy process can enable a client to promote, develop, restore, maintain or prevent loss of health and occupational performance as opposed to dysfunction/deprivation through engagement in (performance of) selected occupations that have intrinsic meaning and purpose to the client within the context (environment) in which the client lives on a
daily basis.

<table>
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<th>What is missing in the signature pedagogy?</th>
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<th>Occupational Therapy</th>
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<td>In legal education the pedagogies of both practice and performance are not mainstream and not necessarily required</td>
<td>The classic learning approaches (&quot;hands on,&quot; &quot;watch the master,&quot; and &quot;share experience with classmates&quot;) are being challenged by the need to education and train more students. The classic approach requires small class size where the instructor can model to and monitor (test) each student individually. Distant education has to be planned to balance the need for “touchy, feely” kinesthetic learning with the observational and “textbook” learning. On-site educational programs must increase the number of laboratory sessions (and experienced instructors) to accommodate larger cohorts of students. More fieldwork sites must be identified which may be located in more remotely</td>
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from the site of didactic instruction. In addition, the opportunity to problem solve complex case examples with an expert (master clinician) to gain practice in clinical reasoning must be maintained.

A chapter by Schaber, Marsh and Wilcox in *Exploring More Signature Pedagogies: Approaches to Teaching Disciplinary Habits of Mind* (Chick, Haynie, & Gurung, 2012) makes the case for “relational learning and active engagement” as a signature pedagogy in occupational therapy.

**Possible Considerations for Teaching and Learning in Occupational Therapy**

**Preparation for Uncertainty**

*In spite of the importance of both theory and practice, professions are not simply conduits for taking knowledge from the academy and applying it to the field. The process of judgment intervenes between knowledge and application. Human judgment intervenes between knowledge and application. Human judgment creates bridges between universal terms of theory and the gritty particularities of situated practice. And human judgment always incorporates both technical and moral elements, negotiating between the general and the specific, as well as between the ideal and the feasible.* (Shulman, 2004, p. 534)

The challenges of professional education are summarized well here by Shulman (2004). In professional education we are constantly challenged to find balance in preparing graduates who know, apply, think, render judgment, and are able to manage the uncertainty of practice yet we live in a system that tends to favor emphasis on certainty and measures of accountability. We know that an academic knowledge base is important but not sufficient for practice. It is learning, learning for practice, and
learning from experience that makes all of the difference in professional education (Jensen & Purtilo, in press).

There are many explicit and implicit messages that are part of everyday culture in professional education.

- Professional students move as fast as they can through undergraduate courses in the liberal arts or humanities so they can begin with courses that really matter, the professional applied courses where they see the direct application of skills and knowledge to practice.

- With an increasing number of applicants for professional programs, there is a tendency to focus on more quantitative achievement measures that often favor performance in the science and technical courses over student achievement in the humanities.

- Faculty curriculum discussions about course credits and programmatic emphasis usually view the foundation science courses as essential, tough, and predictive of student success in contrast to the behavioral sciences or more humanistic components of the curriculum.

- When it comes to assessment of student learning and performance, assessments generally favor objective measures of performance such as multiple choice examinations over other assessments such as engaging students in their own self-assessments, creative work or narrative case creation.

Many of the health professions are engaged in exploring the learning from experience that occurs in the workplace, the community of practice. This workplace
learning involves relationships and interactions in the practice community. It is in the practice setting where social cultural learning theories that focus on the importance of situated learning is at work. Here the learning is participatory and interactive as there are meanings or social construction of knowledge created in these communities of practice (Harris, 2011; Webster-Wright, 2009). Again occupational therapy has much to offer in their understanding and experience in situated learning that is essential to professional preparation.

**Challenges in Human Improvement**

Cohen (2005) argues that professions of human improvement such as therapists and teachers share a common struggle. While expertise is essential to the practice, it is also inadequate as the outcome depends on human performance of the client/patient/student. This predicament of human performance also brings a certain amount of uncertainty to the practice environment. The practitioner’s ability to mobilize and sustain the clients’ commitment is critical to the success of the task and ultimate outcome. The practitioner cannot succeed without the patient working together to meet challenges. Given the strength of occupational therapy’s focus on relational learning and active engagement of the client this may be an area of unique contribution?

**Multiple Frames of Reference**

One of the findings that the Carnegie studies have continued to advance is the importance of connecting a strong liberal arts preparation with professional education as foundational to developing practical reasoning skills. This liberal arts preparation provides the learner with the ability to understand meaning, see multiple frames of reference, and engage in a narrative mode of thinking – all of which is essential for
practical reasoning. Preparation in the humanities provides a means of understanding and interpreting the complexities of purpose and meaning. William Sullivan (2005) has continued to argue that practical reasoning, not critical thinking, is foundational to professional practice across all professions. Sullivan (Sullivan & Rosin, 2008) describes practical reasoning as a three-fold movement or pattern of thinking. For example, in health care, there is usually a process between the patient and the provider that involves a “rhythm of moving back and forth from engagement with the concrete situation, through observation and analysis, and then back again to the more informed engagement with the person and the situation. It is the therapeutic purpose that creates the “imperative for clinical judgment.” A health care provider must decide what course of intervention is good for a particular patient, at a certain time, and in this situation. While scientific analysis and problem solving are important skills in professional practice, the ability to engage and learn through the social process - interactions and relationships of practice or apprenticeship is just as important. Sullivan would further argue that liberal education is also concerned with teaching judgment and complex reasoning in uncertain and changing situations.
Appendix C

Question 3: Does the profession have autonomy in decision-making in practice?

Background and Literature Review by Kathlyn Reed, PhD, OT, FAOTA, MLIS

Professional Autonomy in Occupational Therapy

Clarifying the Question

The recommendations and statements below are based on the following assumptions:

- That the question of autonomy is addressed primarily to the profession of occupational therapy as a whole (group, aggregate, organization) and secondarily to individual autonomy in decision making by individual members
- That the term “professional autonomy” of the organization (AOTA) and of the profession of occupational therapy is the major areas of concern
- That the question is focused on issues of both technical (knowledge and skills) and socioeconomic significance to occupational therapy practitioners as opposed to ethical autonomy (rights) of clients
- That the term "decision-making" is aimed at issues related to decisions to be made by the AOTA, rather than at the level of an individual practitioner for a particular client or service program, and can be interpreted broadly to include both technical (knowledge and skills) and socioeconomic issues in professional autonomy
- That a review of terminology concerning autonomy is needed to clarify what is being discussed, because the word “autonomy” is used in many different contexts which can be confusing to the reader.
- That a short review of characteristics of a profession and the history of professional autonomy in occupational therapy is needed to clarify the current position and status.
- That recommendations for actions to be taken by AOTA to increase or broaden the professional autonomy of occupational therapy and occupational therapy practitioners should be included.

Terminology

- **Attitudinal autonomy**: The belief that one is free to exercise judgment in decision making, reflects the way individuals feel and view the work of a profession (Wade, 1999, p. 311)
- **Autonomous** (physical [occupational] therapist) practice: Characterized by independent, self-determined professional judgment and action. Physical (occupational) therapists have the capacity, ability and responsibility to exercise professional judgment within their scope of practice, and to professionally act on that judgment (APTA, 2003). The World Confederation for Physical Therapy (WCPT) believes that physical therapists, as autonomous professionals, should have the freedom to exercise their professional judgment and decision making, wherever they practice, so long as this is within the physical therapist’s knowledge, competence, and scope of practice (WCPT, 2011). Note: The word “Occupational” was added to the definitions to provide an example of what the wording might entail from the occupational therapy perspective.

- **Autonomy**: The quality or state of being self-governing, self-directing; freedom, moral independence, or a self-governing state (Mish, 2003, p. 84)

- **Consultation**: The practice of inviting a colleague to participate in the appraisal of the client’s need and/or in the planning of the service to be rendered. (Greenwood, 1957)

- **Countervailing Force**: A social force that is limiting or preventing a social change such as a policy revision from occurring (Sandstrom, 2007, p. 106). Example: Current policy edict (MEDPAC) which reinforces the role of the physician (expert on pathology) as gatekeeper to therapy services that address impairments and functional limitations (activity and participation limitations).

- **Deprofessionalization**: The social process by which the professions are losing the characteristics of a profession, including autonomy (Sandstrom, 2007, p. 106)

- **Direct/Unrestricted Access**: The physical (occupational) therapist has the professional capacity and ability to provide to all individuals the physical (occupational therapy) services they choose without legal, regulatory, or payer restrictions (APTA, 2003) Note: Occupational and occupational therapy added as examples only.


- **Dominance** (professional, occupation): The ability of a profession to control the terms of another profession’s work (Sandstrom, 2007, p. 106). The authority to direct and evaluate the work of others without in turn being subject to formal direction and evaluation and … is sustained by the dominance of its expertise in the division of labor (Freidson, 1970b, p. 136)

- **Functional Autonomy**: The degree to which work can be carried out independently of organizational or medical supervision and can attract is own clientele independently (Freidson, 1970a)
Insularity: An internal process by which a profession focuses on its own needs to the detriment of larger social needs and responsibilities (Sandstrom, 2007, p. 106)

Individual (Client) Autonomy: In ethics “the governing of one’s self according to one’s own system of morals and beliefs or lifeplan” (Veatch & Flack, 1997, p. 277). Includes confidentiality, right to accept or refuse treatment, informed consent, moral independence. Not the focus of this document. Provided for clarification only.

Individual (Practitioner) Autonomy: Ability to control the conditions of one’s [professional] work. This definition is a secondary focus of the discussion

Medicalization: A process by which disablement is viewed as a problem centered in the person (pathology) and the solution to be controlled by a medical provider (Sandstrom, 2007, p. 106)

Profession: An occupation that regulates itself through systematic, required training and collegial discipline; that has a base in technical, specialized knowledge; and that has a service rather than profit orientation, enshrined in its code of ethics (Starr, 1982, p. 15)

Professional (Group, Occupation, Aggregate) Autonomy: [Professional] autonomy is a negotiated, social contract between a profession and policy elites based on the public trust in a profession to act in the best interests of the society. A core purpose of professional autonomy is to preserve the individual autonomy of people… [Professional autonomy] is an outcome of a trust relationship established between a profession and society…[Professional] autonomy is a privilege and allows the profession to have greater influence over the everyday terms of his or her work than comparable freedoms available to other workers (Sandstrom, 2007, p. 99). [Professional] autonomy is the ability of a reflective practitioner to make independent judgments; open to initiate, terminate, or alter physical therapy intervention (APTA, 2004). The most critical…elements…are related to the organization of practice and division of labor (Freidson, 1970, p. 133)

Professionalization: Refers to the process by which an occupation, once it has emerged, takes on the characteristics of a profession as an ideal type of occupation (Maxwell & Maxwell, 1984, p. 336)

Rationalization: The social process by which human work behavior is organization into bureaucracies through the development of rules and protocols (Sandstrom, 2007, p. 106) Rationalization affects professional autonomy by organizing professional work into systems that can be controlled by policies and managers. Trust, instead of existing in the patient-provider relationship, is placed in the organization and its rules and procedures in order to ensure high-quality, cost-effective care (Sandstrom, p. 101)
• **Referral**: Practice of affording colleagues access to a client or an appointment (Greenwood, 1957)

• **Socioeconomic Autonomy**: ability of the worker to ascertain and allocate the economic resources needed to complete his or her work (Freidson, 1986, pp. 24-25). Limitations are “related to the increasing costs of health care, public perception of insularity of the professions and increased public confidence in government and capitalistic enterprises [such as] changes in reimbursement policy (managed care) for example” (Sandstrom, 2007, p. 100)

• **Sponsorship**: An occupation may create and sponsor another occupation in the status struggle within a differentiating occupational structure. Such sponsorship will likely have a different effect on the recipient group that if that group were to struggle on its own under conditions of “pure” competition (Maxwell & Maxwell, 1984, p. 331).

• **Technical (knowledge and skills) Autonomy**: right to use discretion and judgment in the performance of work (Freidson, 1986, p. 154). Technical autonomy is regulated by standards of practice, accreditation, and licensure…[which] act to define the technical autonomy of a profession (Sandstrom, 2007, p. 100)

**Characteristics of a Profession (Greenwood, 1957)**

- Systematic body of knowledge (element of superior skill)
- Professional authority (extensive education)
- Sanction of the community (accrediting process, licensing system)
- Regulative code of ethics (commitment to the social welfare)
- Professional culture (organizations, associations, careers)

**Sequence of Professionalization** (Ritzer, 1977, p. 47) with occupational therapy history added in brackets

- Full-time occupation (uncertain who was employed full-time but definitely by 1918, Walter Reed Hospital) Note: Reconstruction aides were civilians, not federal employees.
- Change of name, which becomes the occupation’s exclusive domain (1914, Barton; change from occupational aide or occupational worker to terms “occupational therapy/therapist”). In 1948 physiatrists wanted to change the name to “occupational therapy technician” which was rejected because the government pay would have been less.
- National association (1917, Clifton Springs, NY, National Society for the Promotion of Occupational Therapy, changed to American Occupational Therapy Association in 1921 and in Articles of Incorporation, 1923)
• Training school (1907-1918). Chicago (Lathrop, Taylor, Slagle), Jamaica Plain, MA (Tracy), Boston, Milwaukee, Philadelphia, St. Louis plus many shorter lived courses as Reconstruction Aides
• Code of ethics (1977) (Educational standards established, 1923; Accreditation process with AMA, 1933; Accreditation standards, 1938; Standards of practice, 1968)
• Political agitation to win popular and legal support (numerous articles in newspapers in New York and Maryland, articles in professional psychiatry journals, 1921 US government public health service, 1970s state licensure).
• Other: Professional journal edited by OT: 1947 (Charlotte Bone); First president to be an occupational therapist: 1947 (Winifred Kahmann, although technically Slagle was an OT in 1919); Control of registry: 1932; Control of accreditation/education: 1994. Military status: 1947.

Statement of Policy (AOTA, 1961, p. 24) and current status stated in brackets

• Maintain and control the voluntary registration of its practitioners. (Functions of registration and certification transferred to the American Occupational Therapy Certification Board, 1986 which changed its name to National Board for Certification of Occupational Therapy, 1996)
• Regulation, in conjunction with the Council on Medical Education and Hospitals of the American Medical Association (AMA), the education of occupational therapists to prepare them for their treatment function (relationship with AMA discontinued 1994 and transferred to the Accreditation Council for Occupational Therapy Education [ACOTE])
• Establish and maintain standards of clinical practice in occupational therapy which will improve patient treatment (Standards of Practice for Occupational Therapy, 2010)
• Foster continuing growth in the professional competence of occupational therapists (Standards for Continuing Competence, 2010; AOTA Press publications; continuing education courses)
• Protect the standards of occupational therapy and the environment in which the occupational therapist functions (accreditation, licensure and model practice act, updated documents on definition of occupational therapy, model practice act, ethics, practice, and continuing competence)
• Strongly oppose and protest any administrative policy or structure which ignores or weakens the treatment function of occupational therapy (response to proposed changes in Medicare and other federal and state regulations)

Steps to Professional Autonomy (Physical Therapy, Johnson & Abrams, 2005) with notes added in brackets
• Elevated entry-level educational preparedness (masters versus doctoral level entry)
• Expansion of knowledge and expertise (organization of theory-assessment-planning-intervention-outcome into science based publication)
• Maintenance of high standards of practice and self-regulation (state regulations up-to-date on occupational therapy practice guidelines and professional documents that reflect state-of-the-art practice)
• Growing expectation from physicians and other providers for their service as consultants (statements on what providers can expect from occupational therapy practitioners)
• Increase social need for advocates within the health care professions (increased older population, increase in number of children with complex health conditions, increased war wounded, increased recognition of mental illness and brain injury

PROBLEMS LIMITING PROFESSIONAL AUTONOMY IN OCCUPATIONAL THERAPY

• Bounty: In the “give and take” between occupational therapy and the physical therapy physicians (newly called physiatrists in 1948), occupational therapy (along with physical therapy) was seen as bounty (part of a war chest) by the physiatrists – a way to instantly increase their power by controlling the education and registry of occupational (and physical) therapists (Colman, 1992). Occupational therapy leaders were opposed to being “forced brides” to physiatry and the “marriage” did not occur but the problem of being taken over and controlled by another profession or entity remains a threat to professional autonomy. The federal government, for example, could require the “bundling” of rehabilitation services so that only a certain number of rehabilitation treatment units were available to clients and the physician as gatekeeper would select how many treatment units were allotted to each service. Presently, under Medicare, occupational therapy is protected by a comma in the Code of Federal Regulations from being bundled with physical therapy and speech pathology. The comma could be removed.

• Education versus Training: As Esdaile and Roth (2000) point out, occupational therapy leaders must be mindful of any attempts to nationally control educational standards that encourage training in techniques rather than educating occupational therapy practitioners to think and solve problems. Specifically, liberal education should be preserved because it “prepares students to adapt to a changing world, rather than training them to perform set techniques” (p. 148). The conclusion is that techniques are often bound by the thinking and technology of a particular day and time. Occupational therapy practitioners need to be able
to adapt and change techniques that make use of current knowledge and technology and to abandon thinking and technology that is “past its prime.”

- **Evidence based practice and practice guidelines:** Evidence-based medicine and practice are part of a social movement aimed to strengthen the scientific based of healthcare and determine the effectiveness of interventions. The turn toward the concept of evidence-based was made in part, because studies documented the persistent variation of practice patterns across the country which undermined the credibility of health care practitioners and raise questions about wasteful spending (Timmermans & Kolker, 2004). Evidence based practice requires research studies. Researcher may not be a major career choice for many practitioners. Time for research and funding are additional obstacles. Guidelines based on evidence based studies, however, may act to restrict innovative problem solving and decision making which could benefit clients in terms of reducing or eliminating activity and participation limitations.

- **Gender:** Women may equate acting directly to attain own needs as selfish (Schutzenhofer, 1987). Women may tend to be passive and leave decision making to others. Social and religious values and laws in this country have strongly affected socialization experience and have historically limited the autonomy of women (Schutzenhofer, 1987). Values such as having a job but not necessarily a career may also limit concern for professional autonomy. Mahony (2003) citing Gardner and McCoppin (1995) maintains that occupational therapists in Australia have not been as successful as physical therapy in attaining professional autonomy because occupational therapy remains dominated by middle class women who are not prepared to engage in politics.

- **Governmental and state regulation:** The Medicare Payment Advisory commission (MEDPAC) continues to resist efforts by physical therapy to provide direct access and to require a physician referral. In turn, most insurance companies follow the federal guidelines. In addition, physician as gatekeeper can limit access and reimbursement for services such as home care, home modification, and driver evaluation. Some state practice acts require referral for all occupational therapy services even when no active pathology is involved. While regulations can be helpful in maintain quality of care such regulations can also restrict access. Initially Medicare did not provide for any occupational therapy services except in inpatient services as a “bundled” service.

- **Indifference/lack of concern/insularity.** Search of literature on occupational therapy and autonomy found zero documents on the database Cumulative Index to Nursing and Allied Health (CINAHL). (Actually one article, Esdaile & Roth, 2000, was identified that discussed professional autonomy although several mention the phrase “professional autonomy”). Same search on physical therapy in CINAHL netted 42 documents. AOTA has no documents which discuss and
explain professional autonomy or autonomous practice by occupational therapists. There is a policy statement adopted by the Representative Assembly (2003) that if physical therapy is granted direct access under Medicare guidelines, then occupational therapy should be granted the same privileges. The document on referral adopted in 1980 has been rescinded. Statements on referral in other documents are general and suggest consulting regulatory documents for specifics.

- **Medical Control and Supervision**: Physicians, especially physical therapy physicians (now physiatrists) wanted to control occupational (and physical) therapy beginning in the 1930s. Example: “In order that physical and occupational therapy may be employed to the best advantage and properly correlated, it is essential that there be adequate medical supervision. This means a single physician with training in physical medicine to direct the departments” (Watkins, 1943, p. 117)

- **Medicalization** (orthopedics, physical medicine, pediatrics, and psychiatry): Most of the conditions (diseases, disorders, injuries) seen by occupational therapists are under the medical management of physicians. Physicians are the most frequently mentioned team member. Occupational therapy practitioners use detailed referral forms which ask the physician to spell out in detail which media, modalities, goals, and outcomes are expected from occupational therapy. Because physicians control prescription of drugs they have control over disorders that might otherwise not require medical management.

- **Models of Practice/Frames of Reference**: During the early years of occupational therapy’s existence, occupational therapists practiced under models derived from medicine. Physicians had to filter and explain how occupational therapists “fit into” the model and what they should do in actual practice. See Watkins, 1943 as an example. Beginning in the 1960s occupational therapists were able to explain how occupational therapy could contribute to client care, and share knowledge of how to enhance and facilitate care of persons with a variety of diseases, disorders, and injuries.

- **Private Practice**: Relatively small number of occupational therapists are in private practice where direct access and referral could be helpful in securing clients. The lack of private practice probably contributes to the lack of concern by members about professional autonomy.

- **Psychiatry**: The loss of occupational therapy practice in psychiatry may be an example of deprofessionalization of occupational therapists and illustrate a failure of the profession to monitor and act to protect professional autonomy. In the 1960s federal legislation was initiated to change the care of mentally ill persons from large institutions to local community care facilities. States were dismantling state hospitals as too expensive and warehousing rather than rehabilitating
persons with mental illness. The status of many clients was changed from inpatient to outpatient or day client as clients were released from the state hospital. The focus was changed from emphasis on symptom control to facilitating function in everyday life. Textbooks in occupational therapy, however, continued to stress symptom control and management. Should/could the AOTA have taken a more active role in shaping the educational preparation of students and the continuing education of practitioners to assume the new roles and apply for the new positions? Are there lessons that should be reviewed and learned from the experiences in loss of professional autonomy in psychiatry for occupational therapy practitioners?

- **Role and Function:** Before the 1960s physicians explained to occupational therapists what role and functions occupational therapy would fulfill in various medical models of practice (physical medicine, orthopedics, psychiatry, pediatrics). As occupational therapy models and frames of reference developed, occupational therapists were able to explain to physicians and administrators the role and function of occupational therapy based on expert knowledge of occupation and its relationship to human health, well being, and participation in daily life. Occupational therapy practitioners must continue to be able to explain the role(s) of occupational therapy to others – and avoid having others explain occupational therapy roles and functions to occupational therapy practitioners.

- **Sponsorship and Control:** Originally occupational therapy was associated with social work (Jane Addams, Julie Lathrop, and Graham Taylor in Chicago who influenced Eleanor Clarke Slagle, a founding member) and nursing (Susan Tracy in Massachusetts). Early training courses were done in collaboration with both groups in the United States. Susan Tracy, a founding member, felt that all occupational therapists should be first trained as nurses that would have resulted in sponsorship and control by nursing. However, Dr. William R. Dunton, a founding member, was a strong proponent of medical sponsorship and control. The original principles of occupational therapy in 1919 include a statement that “treatment should be administered under constant medical advice and supervision” (Dunton, 1919). “Occupational therapists tended to look for doctors’ direct sponsorship to give therapeutic outcomes to the use of manual crafts.” (Prud’homme, 2011, p. 77). In the 1930s physical therapy physicians began to take control of hospital based occupational and physiotherapy (physical therapy) programs which had started in the 1920s as hospitals were established across the U.S. In 1948 occupational therapy avoided being sponsored by physical medicine. The AOTA asked AMA to help with accrediting schools in 1931, motion was adopted in 1933. Accreditation with AMA continued until the 1994 when the ACOTE was initiated. The AOTA had a medical advisory board for many years.
SUGGESTIONS FOR INCREASING PROFESSIONAL AUTONOMY IN OCCUPATIONAL THERAPY

- Stress differentiating medicalization of pathological conditions which require medical management from conditions of disablement (activity and participation limitation).
- Stress deconstruction of the ties to medicine in education, practice, and research except where active pathology is a major factor.
- Stress to regulators that disabling conditions which result in activity and participation limitations may exist when no active pathological state exists. Medical management is not needed or necessary if no active pathology exists.
- Stress that activity and participation limitation may result in greater cost to society than the cost to reduce or remove the conditions (not based on active pathology) that restrict activity and participation.
- Stress that activity and participation limitations may be reduced or removed by changing the environment, occupation, individual or any combination thereof – and that occupational therapy practitioners are experts in making such changes happen. Changes in the individual can occur by means other than drugs, surgery and medical advice based on pathology and pathological conditions. Examples include changing body position (sitting versus standing), changing use of body parts (use left hand instead of right), changing motivation level (use more or different reward system).
- Stress that disablement (activity and participation limitations) occurs/exists without evidence of active pathology. Example: Person with cerebral palsy does not have active pathology but does experience disablement. Other conditions may include arthritis, stable spinal cord injury, stable (chronic) stroke, multiple sclerosis, Parkinson’s disease, autism spectrum disorder, attention deficit disorder and others.

STRATEGIES FOR CHANGE TO INCREASE PROFESSIONAL AUTONOMY

Membership and Association Policy

- Develop a policy statement on autonomous practice (professional autonomy) for occupational therapy similar to the APTA and WCPT statements.
- Clarify in official documents the difference between medical management of pathology and intervention to decrease activity and participation limitations (disablement).
- Inform through OT Practice articles why autonomous practice is desirable for occupational therapy and expands the use of occupational therapy knowledge, skills, and services.
• Recommend, encourage, and support occupational therapists as members of regulatory boards at both the state and federal level.
• Encourage members to report perceived or real threats to professional autonomy of occupational therapy to the AOTA on a regular, ongoing basis but particularly at the Annual Meeting and meetings of the Representative Assembly

Regulatory Boards

• Support the concept that medical referral is not needed for conditions that do not have active pathology or in which active pathology is not the focus of occupational therapy intervention.
• Encourage change in regulatory rules so that medical referral is not required for changes in environmental conditions (home modification, vehicle modification, addition of computer in the classroom) since disablement, not pathology, is the major focus.
• Encourage change in state regulatory policies and procedures (rules) to permit occupational therapists to enter cases without referral from a physician in which active pathology is not a major consideration.
• Encourage change in state regulatory rules to permit other licensed professionals to directly refer clients to occupational therapy such as, but not limited to, nurses, physical therapists, dentists, speech pathologists, and psychologists.
• Encourage change in reimbursement policies (rules) to differentiate between conditions requiring medical management due to presence of active pathology as opposed to those conditions that do have active pathology or in which the needs of the client are not based on active pathology.
• Encourage formation of regulatory boards concerned with occupational therapy that are independent of medicine and state medical control or are equal in level of authority to control the scope of occupational therapy practice.

Practice

• Encourage and support the concept of cooperation, consultation, and communication with medicine and physicians in an equal, not subordinate, relationship.
• Encourage the use of hospital and clinic referral forms that allow the physician to refer clients with active pathology to occupational therapy without requiring details regarding use of specific media or modalities (dosage).

Research and Publication

• Encourage research studies and publications that differentiate situations in which activity and participation limitations are the primary focus as opposed to conditions in which decreasing the effects of active pathology is a major focus.
• Encourage research studies and publications that illustrate the cost effectiveness of reducing activity and participation limitations in situations/conditions where active pathology is not a major contributing factor.
• Continue to support, along with the Foundation, the development of knowledge about occupation as a theoretical base of occupational therapy and use of occupational therapy practice models and services to facilitate and enhance participation of activities of daily life.

Education

• Encourage formation of educational programs outside the domain and control of schools of medicine.
• Encourage educational programs to prepare students to think, problem solve, and plan ahead to a changing world and not to limit training students to performing techniques that are learned by rote and repetition.

Inter-professional

• Work collaboratively with APTA, ASHA, and other professional organizations as needed, to support changes in public policies regarding physicians as gatekeepers to service provision.
• Support changes in regulations that permit access, and increase access, to occupational therapy and other rehabilitation services.
Appendix D:

Question 4: How does the profession accept “power” and make decisions to move forward?

Background and Literature Review by Christine Peters, PhD, OTR/L, FAOTA with Terminology contributions from Reed Kathlyn Reed, PhD, OT, FAOTA, MLIS

Over time, the profession accepts power cautiously, conservatively and acts slowly or not at all to move forward. There is a “rigid adherence to status quo” (AOTA 2006, p. 2). This is related to a lack of a definition and understanding of power. Changing leadership patterns occurred gradually, shifting from male medical authority during the founding years of 1917 to the first female President of the AOTA, Constance Kahmann. Kahmann, who was elected to office and served from 1947-1952, broke the glass ceiling in the organizational leadership and shifted a power focus internally from medicine to occupational therapy and from male to female volunteer leadership. It is important to note that physical therapy, whose roots paralleled occupational therapy as Reconstruction Aides in World War I differed in organizational management. Unlike occupational therapists, who were led by physicians for years at the organizational level, in the accreditation of the educational preparation of physical therapists and in clinical settings, female physical therapists assumed the role of organizational Presidents from their founding years. For example Mary McMillan, President of the American Physical Therapy Association stated; “One of the most important tasks of all our members of the National Association is to set a standard for physiotherapy and neither in act, word, or deed, lower that standard.” Physical therapy President Inga Lohne 1923-1924 noted. “In unity lies strength; it is only by getting together to talk over our problems and build up our standards that we can grow into useful organizations in
our community” (Wynn, 1996, p. 58). Similar to the power elite in occupational therapy, these physical therapists showed independence, and made their voices known when advocating for the place and needs of their nascent profession.

The conservative culture embedded in occupational therapy historical roots emerge from a white Protestant upper middle class ethic, who were women altruistically doing good for the needy (Peters, 2011). Thus rose the image of occupational therapy and like professions such as nursing and dietetics as the “helping professions” (Scott, 2009). It can be argued that imbedded in that altruistic “helping” lays a savvy power source of progressive promoters. Slagle made astute connections with Eleanor Roosevelt through parlor room teas and luncheons to promote occupational therapy’s future in the health care market.

Slagle and colleagues Wade and Willard, and with peers Fidler, Bing, Brunyate, Gilfoyle, Wells, and West were power negotiators in their time. These leaders created educational programs, such as Willard, at the Philadelphia School of Occupational Therapy, and Wade at the University of Chicago, Illinois. West, working for the Department of Health, Maternal and Child Health also spearheaded grant funding opportunities that supported occupational therapy academic and institutional growth. The landscape sixty years ago of occupational therapy currently lingers today; the profession lacks a diverse membership. Diversity is perceived as the culture, class, race and gender of the membership of an organization. Diversity and gender issues also influenced how occupational therapy was and is viewed as a powerful profession in a global society (Black, 2002).
Current efforts which focus on cultivating occupational therapy “power and influence” ranges from leadership development in faculty and clinical managers (AOTA, 2012) to students through the AOTA’s and American occupational Therapy Foundation’s (AOTF’s) Annual Student Conclaves to leadership development extended weekends where students are mentored by the profession’s most established therapists who have contributed to occupational therapy and to a greater society. Leadership development and mentorship, using a modeling method has been the approach of choice to shape and mold the upcoming generation of occupational therapy practitioners. Sharing expert knowledge, experience and strategies to career maturity, the Student Conclaves have a rallying influence to inspire and charge the students attending to see themselves as change agents to the future.

In seeking a vision for occupational therapy’s future the AOTA Centennial Vision is often quoted, but seldom acted upon by occupational therapy practitioners. The Centennial Vision (AOTA, 2006), envisions the profession as a powerful, widely recognized profession…. What lacks in this document which introduces this statement is a definition or framework. Interestingly, in this same document, “power to influence” was identified as the second most important strategic element needed to change the profession. There again, a clear understanding and discussion of strategies and what power to influence means is not identified. In October 2003, the Board of Directors of AOTA initiated a strategic planning initiative process where more than 1500 participants contributed specific recommendations. In January 2006, the Association leadership, including representatives from all of AOTA’s component bodies, AOTF, NBCOT, special caucuses, networks and students, practitioners, educators, scientists, and staff
participated in a strategic visioning retreat. Following further review of the profession’s mission, barriers that potentially undermined power or change include occupational therapists “capacity to lead” as well as “unclear professional language,” and as mentioned in the first paragraph, maintaining the familiar or status quo (AOTA 2006, p. 2). That said, there has been some social media attention spotlighting and supporting an interest in power, including AOTA’s past Presidential Blog entitled; “Your President Immersed in Military Culture: The Transformation Power of Occupation.” Identifying Clark’s participation in the Joint Civilian Orientation Conference sponsored by the Department of the Defense (AOTA Presidential Blog, 2012). In a more scholarly tone, Clark (2010), has argued that members of powerful professions have the capacity to obtain leadership positions reviewing the nursing and medical professions successes.

**TERMINOLOGY**

**How is Power Defined?**

Power is “the capacity to influence others, even when they try to resist the influence” (VendenBos, & American Psychological Association [APA], 2007, p. 718). In human relations, power is perceived as “the ability to control, persuade, coerce, force, or manipulate others” (Corsini, 2002, p. 745). To summarize it is the “ability to control others, events, or resources and to make happen what one wants to happen in spite of obstacles, resistance, or opposition (Johnson, 2000, p. 234)

Social power refers to the assumption that people are controlled by their expectations of what they think that others expect of them (Corsini, 2002, p. 916). Social power derives from a number of sources (VendenBos & APA, 2007, p. 718). Examples of social powers are:
  “Lacks social legitimacy and is based instead on fear and use of force” (Johnson, 2000, p. 234)
- Referent Power: “Others’ identification with, attraction to, or respect for the power holder” (VendenBos & APA, 2007, p. 718).

Professional power is the ability to retain jurisdiction when forces imply that a profession ought to have lost it based upon competition. It has two aspects: the first is an ability to win jurisdiction by means not connected with strength of subjective jurisdiction but rather by “interprofessional force” or those interactions that occur between professions, and the other is related to system disequilibrium internally in a profession. Power is not “only a matter of winning contests, but also one of preventing contests from arising at all” (Abbott, 1988, p. 136). Friedson (1986), another social historian who examines professions has identified expert knowledge as power or the salient ingredient to professionalism. Examples of professional power terminology are:

  Authority is a form of power that is socially defined as legitimate, which means it tends to be supported by those who are subject to it (Johnson, 2000, p. 234).
- Expert power: “Others’ belief that the power holder possesses superior skills and abilities” (VendenBos & APA, 2007, p. 718).
- Informational power: “Power holder’s access to and use of informational resources” (VendenBos & APA, 2007, p. 718).
Personal power involves “individual power that is not associated with the occupancy of a social status.” Control is “based on individual characteristics such as physical strength or the ability to argue persuasively” (Johnson, 2000, p. 235). Feminist power is based on the capacity to do things, to achieve goals, especially in collaboration with others and stresses the potential of cooperation, consensus, and equal rights.

**Additional Terminology**

Power base is the interpersonal origin of one individual’s capacity to influence other individuals.

Power elite, originally a term coined by sociologist C. Wright Mills, is the concept of a small number of powerful individuals, especially corporate, political, religious, or military leaders, who hold the highest position of authority in their respective institutions and share a common outlook and values. This elite not only controls vast economic resources but is thought to shape the agendas of government, business, education, and the media through its actions and attitudes. Powerlessness is a “state of mind in which individuals feel they lack control or influence over factors or events that affect their health (mental or physical, personal lives, or the society in which they live)” (VendenBos & APA, 2007, p. 718).

In summarizing terms, there appears to be four types of social power categories that pertain to Question 4 Category 1: *jurisdictional or political power* (power over), reward, coercive and referent. The second category is *professional power* (legitimate, authority, expert, informational). Category 3 is *personal power* which is intrinsically driven, and the last category is *feminist power* which is hybrid of power over coming
from political equality roots and intrinsic motivation or personal power. To illustrate occupational therapy’s path, in terms of these concepts, legitimate or authority (dominance by medicine) creates power over (dominance) occupational therapy and means occupational therapy personnel are controlled by the authority of others. Referent power occur when occupational therapy personnel identify with and show respect to other professionals and professions such as physicians and the practice of medicine, nursing, architecture, psychology, vocational education, etc. Expert power occurs when certain people within and without occupational therapy are identified as having specialized (valued, useful) knowledge, skills and abilities. Informational power involves developing and controlling the message(s) about occupational therapy (what media are used: letters, telephones (cell phones) journals, newspapers, radio, TV, film, video, email, social media, webpages). Knowledge power occurs as the studies about occupation as a theoretical/conceptual model and occupational therapy (practice or applied models) are published. The feminist perspective (power on) occurs when occupational therapy personnel identify what they can do, what goals can be achieved, what consensus can be developed, and with whom they can collaborate and cooperate.

What does not show up in the literature is the construct of organization or organizational power as a free standing construct, although Friedson (1986) identifies professional organizations as a requisite for a profession to be bonifide. The development and support for a professional group such as AOTA or state association to carry out power moves and directives that professional group members in an ethically way will lead to strength through the gaining of organizational power.

Other Professions
Other health professions have discussed and studied professional power. Some examples will be given from nursing, dietetics, and paramedics because of either their maturity or emerging status. Nursing, highly established, and one of the founding occupations of occupational therapy has identified characteristics of a powerful professional practice (Ponte et al., 2007). Nursing, aligning with expert knowledge, identifies its unique role in the provision of client centered and family centered care. Other characteristics are a commitment to continuous learning through education, skill development, and evidenced-based practice. Professionalism and power also includes collaboration and partnering with colleagues in nursing and other disciplines. That said, there is a concern regarding the need to position themselves to influence decisions and resources. Nursing strategies include paving the way for novice nurses with recognized nurses’ voices being heard. Finally, there is a reflective evaluation of power at the department level in organizations and to commitment to enhancing the power of diverse perspectives. Although there are overlaps in this thinking with the AOTA’s Centennial Vision, nursing articulates guidelines more clearly for transitioning novices, for changing boldly while using a unique identity and an expert power base.

Dietitians similar to occupational therapists sought military pathways for professional opportunity. By World War II, Public Law 80-36 (April 16, 1947) authorized Regular Army commissions for dietitians, and physical and occupational therapists. Scott (2009) argues that dietetics served as a portal for women’s access to higher education in science and medicine. The military service in the U.S. Women’s Medical Specialist Corps was critical to the professionalization of women’s labor; expand their access to professional resources and political power. Peters (2011) has made a
parallel argument that the military served as a training ground for leaders and scholars, including West, Reilly, Cromwell, Welles, and Fidler during World War II. With rank dictating power, profession, and gender followed suit. These beginning roots in dietetics as well as occupational and physical therapy flourished from Reconstruction Aides to today’s science driven professions that developed individually.

Strategies for political power of Paramedics are the last and least developed profession that will be discussed and paralleled to occupational therapy. Mahony (2003) used a sociological historical analysis reviewing political and economic influences that paramedics used for professionalization. Outlining five political strategies for gaining power, paramedics made a case for autonomy. The first strategy is to develop a role and expertise difference and be independent (from medicine). Drawing from parallels in nursing and physiotherapy, Mahony (2003) states those professions were female dominated and provided the hand maidens for a male dominated medical fraternity. The second strategy to gain professional autonomy is to recognize and capitalize on experience and skills. This is viewed as moving tacit knowledge into explicit knowledge. A third strategy is to protect and maintain occupational boundary encroachment. The author cites occupational therapy as unsuccessful in protecting encroachment boundaries, when one views the roles of activity therapy personnel in geriatrics. The fourth strategy identified in professional power development is controlling the technology of the profession. For example, nurses knowledge and administration of medication is an example of knowledge as power, or professional turf. The final strategy is for the professional association to take control of education, qualification, and registration. The author states the professional association is the body
to decide the knowledge base necessary and experience necessary before a person can practice as a paramedic. In summary, Murray argues that the health care occupational communities who have been successful in attaining autonomy, engaged in professional politics, extricated themselves from medical dominance, and found their occupational niche.

**Transformational Education**

Gilfoyle (1984) exclaimed that occupational therapy was in a crisis, and needed to question its philosophical base from a perspective of dynamic change. She projected a period of disunity, and a phase when old values and constructs are examined, followed by an opportunity for transformation with transformation being viewed as an integration of past, present, and future. She suggested a transformation in occupational therapy from purposeful activities to occupation, from allegiance to scientific knowledge to include intuitive knowledge, and from a biomedical model focus to inclusion of wellness. In addition Gilfoyle stressed the need to re-organize educational curricula to reflect the profession’s value system and to predict practice. This declaration shook the status quo of the time. Gilfoyle addressed feminism as a major force in occupational therapy culture, projecting that the self-assertive woman will emerge as powerful in the profession. Therefore, two decades ago, Gilfoyle challenged some directions that occupational therapy has continued to furrow deeper into, including an allegiance to scientific knowledge while shifting to include intuitive or tacit knowledge. Gilfoyle’s past recommendations could be viewed in current time to support evidence based practice using the methods of science while also embracing qualitative and philosophical inquiry into occupation and occupational therapy.
In a time of hyperchange, a term used by Hinojosa (2007) who challenged occupational therapy status quo. transformation and paradigm shifts are needed to continue refueling a profession on the move. These paradigm shifts include what information is most relevant and compatible to occupational therapy’s core values.

In conclusion, how does the profession accept power and make decisions to move forward? Occupational therapy has had a cohort of power elite who have challenged the profession. However, due to lack of clarity of direction, and definition, as well as a tradition of conservatism, the profession does not move forward easily. Growth spurts exist, due to societal needs; however, occupational therapy remains traditional and reactionary. What is needed is a re-evaluation of new thinking and embracing rather than perceiving power as a negative. Expanding to a grass roots level, and moving from local to global, while investigating other quick growth industries will assist in suggesting new models.
References


Bibliography


Report to Ad Hoc Committee for Future of OT Education

**TOPIC: INCREASING FEDERALLY FUNDED RESEARCH**

Joan Rogers, Joy Hammel, and I met by conference call on Monday to discuss the Ad Hoc Committee’s request to give recommendations on increasing occupational therapy’s access to federal funding for its research. (Mary Lawlor reviewed this proposal and provided comments.) We talked about the context for this effort as putting more emphasis on graduate education (PhD students), post doctoral fellows and our faculty scientists who we know have skills that need to be supported as they compete for and train students to function in a complex federal funding environment. We see the recommendations we are making to your ad hoc committee to be efforts that need to be coordinated with the AOTF to build the infrastructure to insure the continuing success of our mid career scientists and those they are mentoring, which in turn will provide the evidence base for occupational therapy practice.

Joy Hammel, Mary Lawlor and I were at the Occupational Science Summit and were pleased to observe over 40 mid-career occupational therapy scientists who had brought about 30 PhD students who are in training to become career scientists. This experience and a review of Joan Rogers’ Report to the Board in 2005 are reflected in the following 4 categories that have yielded 14 recommendations. Thank you for the opportunity to make recommendations.

1. **Develop a networking infrastructure to provide funding resources, education, and mentoring opportunities for our mid-career scientists (many of whom are our educators in research intensive and extensive universities) and their mentees.**

   We see a very active role for AOTA and AOTF research staff to build social capital for our career scientists. There must be an active environmental scanning process to identify federal research priorities that have relevance to occupational therapy researchers.

   **Recommendation 1:** We would suggest that the research staff of both organizations take an active role in leading a bi-monthly discussion with the RAP or Academy of Research members to learn of the opportunities that the scientists are picking up in their interactions with colleagues and agencies, and get them out quickly and efficiently to the network of OT junior and senior researchers. This information can be used by the staff as they interact with federal agencies and disseminate information to a career science network (such a network will be discussed below).

   **Recommendation 2:** Utilize OT mid career and senior scientists (e.g., RAP, Academy of Research) to enculturate graduate students and junior scientists to the funding process by discussing their career trajectories and the strategies they are using to obtain funds (federal and private). Design and implement webinars to be held two times per year and made available on a web page long term (e.g., a panel of mid-career scientists discussing funding challenges and strategies for sustaining their laboratories). Mary Lawlor led a similar panel at the OT Summit and it was well received and provoked wonderful questions and discussions.
**Recommendation 3:** Federal project officers (e.g., Ralph Nitkin at NCMRR, Ruth Brannon at NIDRR) should be asked to do annual webinars to educate junior scientists on the range of funding mechanisms and processes offered by their funding source; these would be focused on constantly educating incoming scientists on what is available and how to proceed in applying and getting into this network formally. Another webinar could focus on federal research priorities and new initiatives and priorities, including potential interdisciplinary and collaborative initiatives in which OT’s could participate. Having such webinars would link all levels of OT researchers (junior and senior) with current initiatives and opportunities, both within and outside of OT.

2. **Develop infrastructure for national-level network for mentoring doctoral and post-doctoral students and junior/early career researchers.**

It is important to have an infrastructure and technology to support a strong network of career scientists, postdoctoral, and doctoral students on a career scientist trajectory so junior scientists can learn from senior scientists and senior scientists can discuss advanced methodologies and research opportunities with each other that will yield federally funded work.

**Recommendation 4:** Build or contract for someone to construct an electronic network to support our career scientists. Such a network would require criteria for admission to the network so it was reserved for those who are seeking federal/research foundation funding and have protected time for their science. New scientists will enter this group; it will not be a static group but instead a group that is constantly dialoguing and networking. The success of such a network will be partially dependent upon the ability to build and maintain a database of key researchers, their research programs, and funding sources.

**Recommendation 5:** Build or contract with someone to build such a database to identify and house data of key career scientists and developing scholars who are conducting research in occupational therapy and interdisciplinary areas and who may not have academic appointments in occupational therapy education programs.

**Recommendation 6:** Recognize and validate systematic mentoring by senior scientists in some way, perhaps paying an honorarium to scientists to do a rigorous external review of a grant before submission.

**Recommendation 7:** Develop senior researcher mentoring awards to better recognize time and effort involved in mentoring young scientists.

**Recommendation 8:** Sponsor a senior panel of scientists to perform mock reviews of federal grant proposals (building a professionally funded ERIS-type of seminar), which would include senior researchers external to OT as reviewers, as well as senior OT panel members, so that junior researchers can get feedback from members likely to be on a review panel who may or may not be familiar with OT or OT research.

3. **Develop more strategic alliances with inter-disciplinary research efforts that could include OT’s but currently do not.**

**Recommendation 9:** Host a meeting of PhD program chairs who are preparing research scientists to discuss issues such as how to prepare students for post-doctoral fellowships in related, interdisciplinary fields (e.g.,
aging, community health, neuroscience, rehabilitation science, disability studies), as well as challenges in obtaining training monies, recruitment, and many more issues.

**Recommendation 10:** Ask our senior scientists in aging, neurorehabilitation, technology, pediatrics, and chronic disease to identify key common data elements (CDE) initiatives, including those that are to be included in NIH studies (PROMIS, NIH TOOL BOX) and NIDRR’s initiatives to support their long range plan, and to integrate OT constructs and mechanisms into these CDEs so there are crosswalks between OT and rehabilitation research. Such an effort would give us a common voice to add OT to interdisciplinary and multi-site studies. This could be done on network chats.

**Recommendation 11:** AOTA and AOTF research staff should foster communication among OT’s that are currently serving on study sections and review panels to provide strategies for expanding the representation of OT career scientists on study sections and review panels.

4. **Translate our fundamental theories into specific intervention protocols**

**Recommendation 12:** Sponsor an initiative to build consensus on identifying key mechanisms involved in change within OT research so we develop shared language, research, and measurement (can be a product of a career scientist network). It may be time for a program similar to physical therapy’s that has section meetings at which scientists and senior clinicians interact. We believe that such a structure would begin to build consensus on mechanisms, measures, and language by providing the time for the dialogue that scientists are asking for. Such a meeting would address recommendation 13 below.

**Recommendation 13:** Foster discussion of senior clinicians and career scientists to build the infrastructure for multi-site trials and OT’s involvement within them (in and outside of OT).

**Recommendation 14:** Build a formal Dissemination and Knowledge Translation Plan that engages AOTA in using print, practice guidelines, conference and continuing education opportunities to engage OT practitioners in translating and use research findings within their own practice.

Respectfully submitted,

Carolyn Baum, PhD, OTR/L, FAOTA