



MINNESOTA BOARD OF TEACHING

TO: The Honorable Judge Barbara Neilson
FROM: Karen Balmer, Executive Director
DATE: May 13, 2009
RE: Proposed Rules Governing Reading Preparation, Elementary and Middle School Licensure, and Technology-Related Licensure for Teachers

At the hearing on April 24, 2009, several individuals expressed concerns about the Board of Teaching's proposed rule that would expand the current Keyboarding for Computer Applications endorsement from grades K-8 to K-12. I am pleased to provide additional information in this memo to address the concerns that were raised and to provide clarification on a couple of issues that were raised.

RESPONSE TO CONCERNS

I believe that there were two primary concerns voiced at the hearing and in the public comments:

1. The technology courses potentially impacted by the expanded endorsement option should only be taught by licensed business teachers.
2. There is no current shortage of business teachers; as such there is no need for additional teachers for technology-related courses.

1. The technology courses potentially impacted by the expanded endorsement option should only be taught by licensed business teachers.

The Teacher of Business license is a broad license. In addition to standards relating to technology, it also spans the following topics: business organization and management, sales and marketing, financing, accounting, business information systems, economics, international business, business law, workplace skills, and others. Business teachers are authorized to teach many different types of courses, including those listed in Table 1.

TABLE 1

ACCOUNTING/BOOKKEEPING
OFFICE PROCEDURES
BUSINESS COMMUNICATIONS
SALES/MARKETING
BUSINESS ORGANIZATION/MANAGEMENT
PERSONAL & BUSINESS LAW
FINANCIAL MANAGEMENT
BUSINESS MATH
OTHER BUSINESS CLASSES
ECONOMICS
CAREER EXPLORATION
ELEM KEYBOARDING/BASIC COMPUTER

KEYBOARDING/BASIC COMPUTER OPERATIONS
GENERAL BUSINESS COMPUTER APPLICATIONS
COMPUTER PROGRAMMING
COMPUTER HARDWARE TECHNOLOGY
NETWORK TECHNOLOGY
COMPUTER COMMUNICATIONS & THE INTERNET
WEB PAGE DESIGN

The portions from the current Teacher of Business licensure rule relating to technology are provided below. The entire rule can be found at the link below and is also included as Appendix A.

<https://www.revisor.leg.state.mn.us/rules/?id=8710.4200>

A. A teacher of business has an integrated understanding of the functional areas of business from the perspective of the consumer, the employee, the business manager, and the entrepreneur. The teacher of business must understand:

(5) business information systems, including entry-level career expertise in the use of office technology and can explain the purpose, functions, and common features of contemporary office technology including:

(a) computer technology including fundamentals of contemporary computer architecture and touch keyboarding skills to enter and manipulate text and data through word processing, database, spreadsheet, desktop publishing, and presentation graphics software;

(b) multimedia and imaging technology;

(c) telecommunications technology; and

(d) the impact of information systems on society; and

B. A teacher of business has a fundamental and integrated understanding of the factors that affect business from the perspective of the consumer, the employee, the business manager, and the entrepreneur. The teacher of business must understand:

(3) business law fundamentals, including:

(e) how advances in computer technology impact property law, contract law, criminal law, and international law; and

(4) technology concepts that are of lasting value rather than mastery of specific hardware or software skills and knowledge, including:

(a) understanding the fundamentals of current and emerging technological concepts including types, transmissions, storage, and display systems; and

(b) the ability to examine the technological issues from a variety of perspectives including appropriate use, privacy, ethics, remaining current, access, and economic advantages and disadvantages.

C. A teacher of business demonstrates the following essential workplace skills and understands how to create learning experiences that make this content meaningful to students. The teacher of business must demonstrate:

(2) data interpretation and management skills, including the ability to acquire, evaluate, organize, maintain, and interpret and communicate information using both manual and computer technology;

The Board of Teaching does not dispute the idea that Business teachers are well prepared to teach technology-related courses as a function of this license. In fact, we agree that these teachers provide a unique integration of technology into their content and we believe that this is an asset to our students.

The Board of Teaching does dispute, however, the notion that Business teachers are the only pool of teachers who can or should teach technology-related courses. The integration of technology by a Business teacher may look different from the integration of technology by a licensed Math teacher, but the Board of Teaching believes that there are rich underpinnings of content that both teachers can bring to technology-related coursework. The specific applications of the technology may be different, but it is not reasonable to suggest that students cannot learn technology-related skills and concepts outside of a business-focused setting.

The proposed Scope of Practice for the expanded endorsement states:

A teacher of computer and related technology applications is authorized to provide to students in grades kindergarten through 12 instruction that is designed to teach computer applications, including general productivity applications, graphics, imaging, multimedia, video and animation, audio, and digital communications including but not limited to the Internet and electronic communications and computer keyboarding. This teacher is authorized to lead, collaborate, and consult with other classroom teachers for the purpose of integrating technology learning into content area curriculum.

The Board believes that the preparation for these teachers under this rule would sufficiently prepare them to teach technology-related courses.

Further, many of the comments at the hearing related to the ongoing professional development of Business teachers as a rationale for their unique standing as teachers of these courses. The culture of ongoing professional development is found across all licensure fields; the expectation for continual growth is not unique to Business teachers, and all teachers are required to demonstrate professional development for licensure renewal. There is simply no evidence to suggest that teachers with the expanded Teacher of Computer, Keyboarding, and Related Technology endorsement would not share the same love of the content area and desire to engage in meaningful professional development.

2. There is no current shortage of business teachers; as such there is no need for additional teachers for technology-related courses.

It was suggested at the hearing that there is no shortage of Business teachers to teach technology-related courses in Minnesota schools and that Business teachers will be able to continue to meet the needs of our students for technology-related courses.

The Board of Teaching did not cite technology-related courses as a current shortage area. However, it is the Board's responsibility to analyze policy options to address the needs of our schools and the students they serve; it is well within the Board of Teaching's purview to consider supply and demand issues as we seek to fulfill our vision, which states:

The vision of the MN Board of Teaching is to maintain high licensure standards while providing flexibility in the licensing process to assure that public school students have fully licensed teachers.

Specific to the discussion of the expanded Keyboarding endorsement, the following considerations are critical:

1. There are just four institutions that offer approved Business licensure programs in the state (University of Minnesota – Twin Cities, Winona State University, Bethel University, Concordia College – Moorhead). Three of these offer both undergraduate and graduate level programs.
2. According to the Measures of Teacher Quality in Minnesota website, 44 individuals completed a Business licensure program in 2007-2008. (Note: This includes 28 initial licenses and 16 licensed teachers who added this field as an endorsement.) This website is a data collection site for all MN teacher preparation programs, and the numbers are reported directly from these programs.
<http://mtqm.mnteacher.org/>
3. In addition to earning a license through an approved preparation program, a license can also be earned by the Licensure via Portfolio option. According to the MN Department of Education’s Licensure via Portfolio Coordinator, seven individuals have earned a Business license through this option since 2007.
2007: 4
2008: 2
2009: 1
4. There are a number of different types of special permissions available for school districts to access when they cannot find an appropriately licensed teacher for a particular assignment (or course). Each year the Board of Teaching grants special permissions for individuals to teach courses that require either a Business license or a Keyboarding endorsement. Table 1 below provides data regarding the special permissions granted in each of these fields over the last three years, demonstrating that there is a need for additional licensed individuals in these areas.

TABLE 1

Year	License	Variance	Appeal Variance	Discretionary Variance	Waiver	Limited License	Community Expert	Non Renewable
05-06	Business	33	2	1	2	5	6	NA
05-06	K-8 Keyboarding for Computer Applications	68	2	0	0	0	2	NA
06-07	Business	39	0	2	0	5	5	1
06-07	K-8 Keyboarding for Computer Applications	55	1	0	0	0	1	1
07-08	Business	31	1	1	0	8	6	4
07-08	K-8 Keyboarding for Computer Applications	54	1	0	0	10	2	2

5. Given the increased attention over the last several years to technological literacy and competence, including significant initiatives at the Minnesota Department of

Education, we believe that the demand for technology-related coursework will continue to increase in the coming years.

Taken all together, these considerations lead to a reasonable conclusion that it is appropriate to seek additional opportunities for teachers to be prepared to teach technology-related courses.

Under the current licensure structure, there are very limited options for licensed teachers to teach a technology-related assignment. The options include: earning a 5-12 Business license, earning a 5-12 Technology license (previously known as Industrial Arts), earning a Communications Technology Careers license, which is one of the Career and Technical Education (formerly called Vocational) licenses, or teaching on a variance, which allows a teacher to teach out of his licensure field for up to three years.

The Board of Teaching believes that it is neither practical nor reasonable to expect a licensed teacher to earn one of these licenses if their objective is to teach technology-related courses. The endorsement is designed to be a shorter course of study and targets the skills and knowledge needed for teachers to teach technology-related courses.

Although not explicitly stated as such, I believe that an underlying concern of Business teachers is that the proposed expansion would negatively impact the capacity for business teachers to teach these courses. The key policy question at hand is whether it is appropriate to expand the opportunity for licensed teachers to teach technology-related courses in addition to their existing licensure field(s). Considerations of federal Perkins funding and the potential impact on the course offerings of licensed Business teachers must be secondary.

POSSIBLE CHANGE TO THE PROPOSED RULE

One of the arguments in opposition of the proposed expansion to the endorsement was that any teacher could add the endorsement, and that it would be inappropriate for a K-6 teacher to add the endorsement and teach computer-related courses at the high school level, or for a high school teacher to add the endorsement and use it at the K-6 level.

In response to this criticism, the Board of Teaching is considering a change that would still allow any licensed teacher to add the endorsement, but to limit its use to the scope of the base license(s). So the K-6 teacher could only use it in a K-6 setting, a 5-12 teacher could only use it in a 5-12 setting, etc.

The Board will act on the recommendation below at their May 22, 2009, meeting.

RECOMMENDATION: To include the following language at the end of Subpart 2 in the proposed rule, MN Rule 8710.4525: Teachers of Computer, Keyboarding, and Related Technology Applications:

“A teacher of computer, keyboarding, and related technology applications is limited to teaching in the scope of his or her base license(s).”

We believe that such a change would not be considered substantial and require a subsequent rulemaking process. Rather, it is a direct response to the testimony received by stakeholders and is an attempt to further strengthen the proposed rule.

ADDITIONAL CLARIFICATIONS

1. The expanded endorsement does contain standards relating to keyboarding.
2. The expanded endorsement is not limited to “knowledge” and “understanding.” Rather, Subpart 3A states (emphasis added):

*A. A teacher of computer, keyboarding, and related technology applications understands **and applies:***

APPENDIX A

8710.4200 TEACHERS OF BUSINESS.

Subpart 1. **Scope of practice.** A teacher of business is authorized to provide to students in grades 5 through 12 instruction that is designed to develop understanding of the functional areas of business including management, sales and marketing, finance, accounting, human resources, and information systems; the factors that affect business including economics, international business, business law, and technology; and the personal and work skills of communications and interpersonal relations, data interpretation and management, computation, collaboration and group process, and career development and transitions.

Subp. 2. **Licensure requirements.** A candidate for licensure to teach business to students in grades 5 through 12 shall:

- A. hold a baccalaureate degree from a college or university that is regionally accredited by the association for the accreditation of colleges and secondary schools;
- B. demonstrate the standards for effective practice for licensing of beginning teachers in part 8700.2000; and
- C. show verification of completing a Board of Teaching preparation program approved under part 8700.7600 leading to the licensure of teachers of business in subpart 3.

Subp. 3. **Subject matter standard.** A candidate for licensure as a teacher of business must complete a preparation program under subpart 2, item C, that must include the candidate's demonstration of the knowledge and skills in items A to E.

A. A teacher of business has an integrated understanding of the functional areas of business from the perspective of the consumer, the employee, the business manager, and the entrepreneur. The teacher of business must understand:

- (1) business organization and management, including the functions of management; historical and contemporary management theories; characteristics and the advantages and disadvantages of the major forms of business organizations; organizational structures and principles; the role of ethics in management; the impact and relationship of government regulations and community involvement to business management decisions; and the role of organized labor and its influence on government and business;
- (2) sales and marketing, including roles of marketing and the impact of marketing on the individual, business, and society; the role and application of ethics in marketing; external factors that influence or dictate marketing decisions; product development and forecasting principles and methods for determining sales potential; role of pricing in the marketing process and the use of various pricing strategies; distribution processes and methods in developing distribution plans; general forms of promotion and how each contributes to successful marketing; market research development, implementation, and evaluation; marketing variables and strategies in dealing with a diversified marketplace; the components of a comprehensive marketing plan; principles of selling and merchandising; and the function of retailing and wholesaling;
- (3) financing, including the influence of internal and external factors, including stock market implications, on corporate financial data and how this data is used to make long-term and short-term management decisions; traditional sources for securing financing; the relationships among price, market share, and profitability; personal financial resource management and how more individual wants and needs can be satisfied by wise

consumer decision making; the functions of commercial paper, insurance, secured transactions, and bankruptcy; the role of credit and the impact of long-term and short-term credit; and different types of budget processes;

(4) accounting, including the accounting cycle and the purposes of each component of the cycle, methods for determining the value of assets, liabilities, and owner's equity according to generally accepted accounting principles and when and why they are used; how to prepare, interpret, and analyze financial statements using manual and computerized systems for service, merchandising, and manufacturing businesses; and the use of planning and control principles to evaluate the performance of an organization and apply differential analysis and present value concepts to make decisions;

(5) business information systems, including entry-level career expertise in the use of office technology and can explain the purpose, functions, and common features of contemporary office technology including:

(a) computer technology including fundamentals of contemporary computer architecture and touch keyboarding skills to enter and manipulate text and data through word processing, database, spreadsheet, desktop publishing, and presentation graphics software;

(b) multimedia and imaging technology;

(c) telecommunications technology; and

(d) the impact of information systems on society; and

(6) human resources, including the activities of human resources management, its importance to the successful operation of an organization, and the role and importance of employment law as related to the conduct of business in the national and international marketplace.

B. A teacher of business has a fundamental and integrated understanding of the factors that affect business from the perspective of the consumer, the employee, the business manager, and the entrepreneur. The teacher of business must understand:

(1) economic fundamentals, including:

(a) the role of competitive markets and the price mechanism in the production, distribution, and allocation of scarce resources, including human, capital, technological, and natural within the United States economy;

(b) how the basic economic concepts of scarcity, opportunity cost, and trade-off influence the production, allocation, and consumption of goods and services in businesses and households, and the formulation of government domestic and international economic policy;

(c) the linkages between gross domestic production, consumption, investment and savings, employment levels, inflation, international trade, and government policy on taxation and spending;

(d) how the Federal Reserve System acts as our nation's central bank to promote a safe, sound money supply and how it initiates and effectuates the monetary system to allow for noninflationary economic growth;

(e) alternative economic systems, and the philosophical assumptions supporting these alternative systems; and

(f) the importance of, and economic interdependencies that exist in the global economy in relation to world trade, investment, and monetary flows;

(2) international business fundamentals, including:

(a) the role of international business and its impact on careers and doing business at the local, state, national, and international levels;

- (b) communication strategies and ethics necessary and appropriate for effective and profitable international business relations;
- (c) the role, importance, and basic concepts of international finance and risk management, international marketing, and balance of trade concepts; and
- (d) the social, cultural, political, legal, and economic factors that shape and impact the international business environment;
- (3) business law fundamentals, including:
 - (a) the relationship between ethics and the law;
 - (b) the sources of the law, structure of the court system, and different classifications of procedural and substantive law;
 - (c) the relationships among contract law, law of sales, and consumer law;
 - (d) the legal rules that apply to personal property and real property;
 - (e) how advances in computer technology impact property law, contract law, criminal law, and international law; and
 - (f) the role and importance of agency law and employment law as they relate to the conduct of business in the national and international marketplaces;
- (4) technology concepts that are of lasting value rather than mastery of specific hardware or software skills and knowledge, including:
 - (a) understanding the fundamentals of current and emerging technological concepts including types, transmissions, storage, and display systems; and
 - (b) the ability to examine the technological issues from a variety of perspectives including appropriate use, privacy, ethics, remaining current, access, and economic advantages and disadvantages.

C. A teacher of business demonstrates the following essential workplace skills and understands how to create learning experiences that make this content meaningful to students. The teacher of business must demonstrate:

- (1) communication and interpersonal skills including the ability to:
 - (a) understand how to approach communication from a systems perspective including cultural, organizational, technological, and interpersonal perspectives and how to use the system perspective to analyze and direct the choice of communication strategies and forms;
 - (b) communicate in a clear, courteous, concise, and correct manner using oral communication skills, informational reading skills, written communication skills, and effective listening skills; and
 - (c) apply effective human relations and interpersonal skills;
- (2) data interpretation and management skills, including the ability to acquire, evaluate, organize, maintain, and interpret and communicate information using both manual and computer technology;
- (3) computational skills, including the ability to:
 - (a) use mathematical procedures to analyze and solve business problems for areas, including taxation; savings and investments; payroll records; cash management; financial statements; credit management; purchases; inventory records; depreciation, cost-recovery, and depletion; and
 - (b) construct, read, and interpret and make inferences from tables, charts, and graphs;
- (4) collaboration and group process skills, including the ability to understand a holistic perspective, develop and communicate group goals, understand the role of the individual in groups, and interpret and process feedback within groups; and

(5) career development and transition skills, including the ability to understand and apply career development theory, the job procurement process, and all forms of communication used in the successful pursuit of a career.

D. A teacher of business understands occupational clusters within business, marketing, and information management sufficient to:

- (1) enable students to develop a perspective of career options in the business fields of management, sales and marketing, accounting and finance, information systems, or office management and administrative support;
- (2) gain understanding of the basic purposes, issues, skills, nature of work, and major concepts that undergird employment in one or more occupations centrally associated with applying academic business content;
- (3) establish activities that allow students to understand individual work in the context of broader business goals;
- (4) organize instruction that enables students to more effectively learn how to acquire skills, gain a perspective on a career, and embark on the first job; and
- (5) understand the unique characteristics of an entrepreneur and the special skills of entrepreneurship associated with starting, owning, and managing a business.

E. A teacher of business must be able to integrate understanding business with the understanding of pedagogy, students, learning environments, and professional development. The teacher of business to preadolescent and adolescent students must:

- (1) understand and apply educational principles relevant to the physical, social, emotional, moral, and cognitive development of preadolescents and adolescents;
- (2) understand and apply the research base for and the best practices of middle level and high school education;
- (3) know how to develop curriculum goals based on the central concepts of the business and how to apply instructional strategies and materials for achieving student understanding of this discipline;
- (4) understand the role and alignment of district, school, and department mission and goals in program planning;
- (5) understand key legislation germane to business education and school-to-work transition programming;
- (6) understand fiscal, budgetary, and purchasing practices that focus on how to organize and equip an effective and efficient classroom including selecting and maintaining instructional materials, supplies, furniture, and technology that are consistent with the current program standards;
- (7) understand the need for and how to connect student secondary schooling experiences with the workplace or further educational opportunities;
- (8) know how to involve representatives of business, industry, and community organizations as active partners in creating educational opportunities;
- (9) understand the role and purpose of cocurricular and extracurricular business activities in the teaching and learning process;
- (10) know how to access information relevant to the field of business through consumer, business, and professional organizations, publications, and journals;
- (11) know strategies for marketing the business education program, including student recruitment and retention techniques and practices;
- (12) know how to develop and apply evaluative criteria for a business curriculum and a plan for continuous improvement;

(13) understand the impact of reading ability on student achievement in business studies, recognize the varying reading comprehension and fluency levels represented by students, and possess the strategies to assist students to read business content materials more effectively; and

(14) apply the standards of effective practice in teaching students through a variety of early and ongoing clinical experiences with middle level and high school students within a range of educational programming models.

Subp. 4. **Continuing licensure.** A continuing license shall be issued and renewed according to the rules of the Board of Teaching governing continuing licensure.

Subp. 5. **Effective date.** Requirements in this part for licensure as a teacher of business are effective on September 1, 2001, and thereafter.