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SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Douglas D. Piirto

LEADERSHIP – A LIFETIME QUEST FOR EXCELLENCE

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Seinäjoki 2014

Seinäjoen ammattikorkeakoulun julkaisusarja
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Seinäjoki Academic Library
Kalevankatu 35, FI-60100 Seinäjoki
FINLAND
tel. +358 20 124 5040 fax +358 20 124 5041
seamk.kirjasto@seamk.fi

ISBN 978-952-5863-96-3
ISSN 1456-1751

ISBN 978-952-5863-93-2 (PDF)
ISSN 1797-5581 (PDF)

FOREWORD

Many wonderful people have influenced my life journey. I thank all my undergraduate and graduate students at Reedley Community College, California Polytechnic State University (San Luis Obispo), and Seinäjoki University of Applied Sciences for the joy and fulfillment they have brought to my life. I thank my colleagues for their support with special appreciation extended to: 1.) Dr. Antti Pasila (Dean) and Dr. Tapio Varmola (President) at Seinäjoki University of Applied Sciences; 2.) Dr. Dave Wehner (retired Dean) and Dr. Warren Baker (retired President) at Cal Poly; 3.) Dr. Risto Lauhanen, Dr. Juha Tall and other colleagues for review comments; 4.) Silja Saarikoski and Sanna Kontiola for editing and graphic design. I especially thank my wife Mary, my sister Doris Donchak, and our families for always being there to support and encourage me.

November 20, 2014

Douglas D. Piirto

Ph.D., RPF

EXECUTIVE SUMMARY

This paper is written for aspiring leaders and managers. Each of us will be asked to lead, manage, and/or follow at various times and in many different situations in our journey of life. This paper is written to assist aspiring leaders and managers discover and develop their leadership and management abilities. The paper is organized per the following outline:

- Introduction
 - Establishing Credibility
 - Enthusiasm and Desirable Habits of Effective People
 - Leadership and Management
 - Situational Analysis and Leadership Styles
 - Leadership as a Student (discussed in Introduction)
 - Leadership as a Forest Scientist
 - Leadership as a Teacher and Professor
 - Leadership as a Department Head
 - Leadership as a Practicing Forester and Agency Official
 - Leadership as an Advocate
 - Leadership as a Concerned Citizen
 - Family Leadership
 - Case Study: California Board of Forestry and Fire Protection
 - Summary, Key Points
-

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INTRODUCTION

Our journey in life can be compared perhaps to that of a flowing river. The river is tranquil in some locations and turbulent in other places. Life for each of us takes on multiple dimensions in relation to our health, fitness, faith, self-development, family, community service, and work goals. All of these goals require that we assume a leadership and a management role for ourselves, family members, friends, colleagues, co-workers, and mutual goal oriented associates. Leadership and management are terms that people often only associate with higher level positions. However, we make very important life affecting decisions each and every day. Those personal, family, community, and work related decisions and the associated work related to them require leadership and management for each and every one of us as we journey through life.

The idea of a flowing river¹ (Figure 1) fits this discussion on leadership as our journey through life is filled with numerous challenges and opportunities some of which are easy to negotiate and others of which are quite tumultuous. Navigating our journey of life to assure survival, happiness, sustainability, prosperity and so much more requires good leadership and management skills. Rarely are people born leaders but rather for most of us education, training, mentoring, and learning by doing experience are required to develop the leader and manager in each of us. The journey is both challenging and transcendent.



Figure 1. Kyrönjoki River in Ilmajoki Finland (Etelä-Pohjanmaa) (Photo: M. Piirto)

¹ The Kyrönjoki and Seinäjoki rivers in South Ostrobothnia (i.e., Etelä-Pohjanmaa) are a major part of the landscape in and around Seinäjoki University of Applied Sciences and the communities of Seinäjoki and Ilmajoki. The inspiration, motivation, and a perceived need to develop this paper originated in this suomalainen (i.e., Finnish) landscape.

At first I balked at the idea of developing a paper and associated lectures regarding my American leadership experiences as I know that there are many more people much more qualified to do so. Yet my life has been filled with situations where I had to take the lead to do what needed to be done, to challenge the system, to achieve long-term goals and objectives, and so much more.

So it will be Finland that will serve as the backdrop for this paper on leadership as SeAMK University leaders asked me to lecture and lead the way for aspiring students and graduates in a variety of areas (e.g., forestry, agriculture, engineering, technology, other professional and vocational disciplines).

Picture Seinäjoki University of Applied Sciences (SeAMK) in South Ostrobothnia (Etelä-Pohjanmaa) in central Finland with its working farms and forests, flowing rivers and lakes, peatlands and blueberries (mustikka) with hard working Finnish (suomalainen) people living in harmony with the land (maa) and its wonderful variety of associated ecosystems. The Finnish people have led the way in their quest to achieve sustainability and balanced use. It was here in Finland (Figure 2) that I was asked to develop a paper and deliver lectures on leadership in forestry, natural resources, agriculture, and associated professional areas.



Figure 2. A Typical View of a Sustainably Managed Finnish Landscape (Photo: D. Piirto)

Each of us as we journey through life will face many challenges and opportunities requiring leadership and management on our part to achieve our goals, live our lives, and prosper. It is in this context that I write this paper on leadership and management sharing what I have learned from the personal and professional challenges that have been a part of my life. This paper will include a discussion on: good habits of effective people, leadership, management, leadership styles, associated work of leaders/managers, and principles of leadership in relation to the kinds of challenges and opportunities that a forester, forest scientist, university professor, agency employee, community college teacher, international consultant, practicing professional, student, and family person will face in life. Examples of personal and professional life challenges will be enthusiastically described and discussed (e.g., California Board of Forestry and Fire Protection case study in relation to: historical overview, key legislation, appointment process, roles, responsibilities, and how things work). Key points are highlighted throughout the paper.

We are each asked to lead in various ways. My career leadership story for example began the day my father (Isä), Rueben A. Piirto a US Navy veteran who fought on the aircraft carrier USS Bunker Hill in the Battle of Okinawa in World War II, asked me when I turned age 18: “Well Doug are you going to get a job now that you have graduated from high school, get drafted for military service, or go to the University of Nevada at Reno (UNR) to get your Bachelor of Science degree (Figure 3)? I was conflicted as I felt an obligation to serve my country given my father’s and uncles’ distinguished military service. My father was suggesting to me that perhaps I should first work on establishing a broader range of career opportunities that develop from a good college education. I followed my father’s lead in the suggestions and options he laid out for me. My father showed paternalistic leadership in terms of guiding me without telling me what my future must be. He left that choice up to me. His advice led to my successful completion of my Bachelor of Science degree from the University of Nevada at Reno, my Master of Science degree from Colorado State University, and my Ph.D. from the University of California at Berkeley with follow-up credentialing as a USDA Forest Service Certified Silviculturist and a California Registered Professional Forester. Leadership was shown in a variety of ways by both my father and I in this example.

Frederick Arnander (2013 stated): “*We are all leaders. Leadership is not a position, it is a mindset.*” I agree with this statement. The examples that follow in this paper are from personal life experiences to help underscore the published literature on leadership and management. Quotations from notable authors are included



Figure 3. Photo of Father (*Isä*) Rueben A. Piirto (left) and Son (*Poika*) Dr. Douglas D. Piirto. *Omena ei putoa kauas puusta* (Like father, like son). (Photo: M. Piirto)

to help illustrate key points. This paper is written to assist aspiring leaders and managers discover and develop their leadership and management abilities.

Key Points:

- Each of us will be asked to lead and manage in a variety of ways as we journey through life. My father (*Isä*) would advise each of us to rise above each situation, look down on it to get a good view of the situation, and then decide on the proper course of action to lead and manage yourself and others to the future.
 - Leaders are organized with clear identification and communication of vision, goals, and objectives.
-

ESTABLISHING CREDIBILITY

My wife Mary and I were discussing leadership and management as to how I might best try to organize this paper for aspiring leaders and managers. I suggested to Mary that I would focus on the published literature more like an annotated bibliography. Mary aptly stated:

“Such a literature review anybody can do. Aspiring leaders and managers want to hear about your real life leadership and management experiences. How else can you speak about leadership and management if you don’t make it personal?”

My colleagues² at Seinäjoki University of Applied Sciences agreed with that basic intent suggested by my wife Mary. As such, this paper will focus on the leadership and management lessons learned in relation to what has transpired in my life journey³ hoping that those lessons will be of value to aspiring leaders and managers.

My career has focused on serving others and our community. Leadership is about service which requires credibility, education and professional experience. Perhaps aspiring leaders might consider the following:⁴

“I shall pass this way but once; any good, therefore, that I can do or any kindness that I can show to any human being, let me do it now. Let me not defer nor neglect it, for I shall not pass this way again.”

Key Point:

- Followers expect their leaders to have sufficient education, credentials, experience, and commitment to their profession, co-workers and society.

2 Dr. Antti Pasila, Dr. Tapio Varmola, Dr. Juha Tall, Mrs. Pirkko Kivinen, Mrs. Anna Tall, Dr. Risto Lauhanen and others at Seinäjoki University of Applied Sciences.

3 Dr. Piirto’s life journey has included experiences as: Undergraduate and graduate student with professional credentials as a California Licensed Forester (No. 2179) and USDA Forest Service Certified Silviculturist; Cal Poly State University Professor of Forestry and Natural Resources (30 years); Cal Poly State University Head for the Natural Resources Management and Environmental Sciences (NRES) Department (14 years); Member and officer of the Society of American Foresters since 1970, Forest Products Society, and other organizations; Forester (i.e., Certified Silviculturist) for 10 years for the USDA Forest Service (Sierra National Forest); Member appointed by President Clinton and later by President Bush to the Giant Sequoia National Monument Science Advisory FACA Committee (GSNM); Consulting Forester/International Consultant; Member of California Board of Forestry and Fire Protection (BOF) appointed by Governor Arnold Schwarzenegger with approval by the California Legislature 2007–2011; Concerned citizen; and Family member.

4 Stephen Grellet

ENTHUSIASM AND DESIRABLE HABITS OF EFFECTIVE PEOPLE

There are many different approaches to effective leadership but all must start with inspired, motivated, and enthusiastic people who have developed good habits. The Webster Merriam Dictionary defines enthusiasm as: strong excitement about something, a strong feeling of active interest in something that you like or enjoy. Enthusiasm requires a good attitude and commitment. Enthusiasm can often combat i.e., reduce worry, facilitate teamwork, and get work done more efficiently by motivated/inspired workers. Enthusiasm can make both work and life fun and interesting.

Emerson wrote: *“Enthusiasm is the mother of effort, and without it nothing great was ever achieved.”*

Dale Carnegie further explains: *“Today is life – the only life you are sure of. Make the most of today. Get interested in something. Shake yourself awake. Develop a hobby. Let the winds of enthusiasm sweep through you. Live today with gusto.”*

Enthusiastic leaders and managers have good habits. There are many references that list desirable attributes of effective people (e.g., Covey 1989), good leaders⁵ and good managers⁶. My experience has shown that effective people, leaders, and managers must be:

1. Honest and trustworthy with a defined set of principles and values;
2. Courageous;
3. Committed and passionate to the job and the people involved;
4. Skilled in human relations with a genuine concern about people. You get respect when you show respect, *(Niin metsä vastaa kuin sinne huudetaan)*;
5. Good, inspirational communicator;
6. Forward thinking and proactive;
7. Professional, organized and purpose driven;
8. Good meeting manager;
9. Punctual;
10. Capable administrator and supervisor particularly in terms of delegation;
11. Self-confident;
12. And much more as the literature clearly suggests.

⁵ Tanya Prive titled Top 10 Qualities that Make a Great Leader (<http://www.forbes.com/sites/tanyaprive/2012/12/19/top-10-qualities-that-make-a-great-leader/>)

⁶ Understanding the Differences: Leadership vs. Management. (<https://www.go2hr.ca/articles/understanding-differences-leadership-vs-management>)

All of us in our life journey will be a follower at one point and a leader in another situation. Good leaders ultimately rise to the challenges put before them because their followers and other administrators want them in that leadership role.

Trust and integrity are the hallmark characteristics of good leaders and managers. Good leaders say what they mean and mean what they say (*Hyvät johtajat sanovat, mitä tarkoittavat ja tarkoittavat, mitä sanovat*). If your co-workers and colleagues have faith and trust in you, and you show faith and trust in them, then almost anything is possible. Working together with visionary and purposeful leadership takes us all to a better future.

Good leaders are supported by the good people that follow their lead. A quote from Ralph Waldo Emerson⁷ helps to emphasize these points: *“Our chief want is someone who will inspire us to be what we know we could be.”*

I would be remiss to not point out that **courage** and **conviction** are essential attributes of good leaders. One such courageous individual is Ms. Malala Yousafzai the young woman who won the Nobel Peace Prize in 2014 for human rights advocacy and for education of women in her native Swat Valley in the Khyber Pakhtunkhwa area of northwest Pakistan.⁸ Ms. Yousafzai continues to show tremendous courage in all that she has and is doing as a human rights advocate and leader.

Key Points:

- Leadership starts with inspired, motivated, enthusiastic, and courageous people.
- Good leaders have good oral and written communication skills (refer to Carnegie 1936, 1962; Piirto 1989).
- Good leaders have developed good habits as described by Covey (1989) in his book titled “The Seven Habits of Highly Effective People.”
- Good leaders like working with people and are committed to all that they undertake.
- Good leaders get involved.
- Good leaders must be trustworthy and honest.

⁷ Emerson, Ralph Waldo. (http://www.brainyquote.com/quotes/authors/r/ralph_waldo_emerson.html)

⁸ Malala Yousafzai. Wikipedia. (http://en.wikipedia.org/wiki/Malala_Yousafzai)

LEADERSHIP AND MANAGEMENT

There are literally thousands of papers and references written on leadership styles and principles. How do we begin to develop our leadership skills and abilities? The journey first begins with training and study. In that study quest it is important to first understand the distinction between leadership and management.

There are many definitions for leadership. John Gardner (1993) defines leadership as: *“The process of persuasion or example by which an individual (or leadership team) induces a group to pursue objectives held by the leader or shared by the leader and his or her followers.”* The literature clearly differentiates the two terms of leadership and management (Table 1) as being different yet strongly connected (Bennis 1989).⁹

MANAGEMENT	LEADERSHIP
• Suomi: Johtaminen	• Suomi: Johtajuus
• Administers	• Innovates
• Maintains	• Develops
• Manages Tasks	• Leads people
• Focuses on System and Structure	• Focuses on people
• Relies on Control	• Inspires People
• Shorter-Range Viewpoint	• Longer Range Viewpoint
• Asks How and When	• Asks What and Why
• Focuses on Outcomes	• Focuses on Trends

Table 1. Management vs. Leadership. Adapted from Bennis (1989)

A good leader focused on new initiatives must also be a good manager. For example, a university leader who is primarily focused on his/her vision for the university's future (e.g., expanded international opportunities, new research initiatives etc.) while putting less emphasis on the day-to-day operations of class scheduling, human relations management, facility management, and so much more will ultimately see a major decline in educational effectiveness as problems develop with those daily, weekly and monthly operations. The day-to-day work must first be achieved before new initiatives are implemented. Yet that same university will ultimately fall behind if new initiatives (e.g., upgraded equipment technology, improved information management, new curriculum development,

⁹ Refer to: a) Leadership Is Not the Same as Management. (<http://www.skillsyouneed.com/lead/leader-vs-manager.html>); b) What Is the Difference Between Management and Leadership (<http://guides.wsj.com/management/developing-a-leadership-style/what-is-the-difference-between-management-and-leadership/>)

learning by discovery etc.) are not implemented to keep the university current and relevant. So, good leaders must insure that good management is occurring either through their own efforts or through good delegation.

So it is within this context that each of us must match our personal attributes i.e., skills, abilities, credentials and experience with the desired leader or manager job description requirements. The literature is quite clear regarding good leadership as being different yet intertwined and connected to good management.

The work of leaders and managers varies in relation to the organizations involved and the types of situations we encounter in our life journey. Leadership and management work activities are intertwined and complimentary as was previously discussed. Trying to be on the forefront of organizational change without giving due consideration to day-to-day good management activities can lead to as one author points out:¹⁰ *“...complex organizations becoming chaotic in ways that threaten their very existence.”* Sufficient numbers of people tasked as managers, leaders, and/or some combination of the two are essential to the success of the organization.

John Kotter on his web sites and in his book (1999) titled ‘What Leaders Really Do’ states:

“But while improving their ability to lead, companies should remember that strong leadership with weak management is no better, and is sometimes actually worse, than the reverse. The real challenge is to combine strong leadership and strong management and use each to balance the other.”

Kotter (1999)¹¹ has done a very good job to list and contrast the differences between the work of managers and leaders. He states:

“Management makes systems of people and technology work well day after day, week after week, year after year doing the following work activities: planning and budgeting, organizing and staffing; controlling and problem solving; insuring efficient operations.”

10 Change Leadership. (<http://www.kotterinternational.com/our-principles/change-leadership>)

11 Information presented here is adapted from several publications by John Kotter including his books titled What Leaders Really Do and the Kotter International web site (<http://hbr.org/2001/12/what-leaders-really-do/ar/1>)

“Leadership on the other hand addresses the systems that managers manage and changes them in fundamental ways to take advantage of opportunities and avoid hazards employing the following work activities: creating vision and strategy; communicating and setting direction; motivating action; aligning people; and transforming systems that managers can manage that allow for growth, evolution, opportunities and hazard avoidance.”

Key Points:

- Aspiring leaders must clearly understand the leader/manager job description to insure that they are properly prepared and ready for the position they are applying for.
 - Clear delegation of management vs. leadership responsibilities must occur to insure success of the organization.
-

SITUATIONAL ANALYSIS AND LEADERSHIP STYLES

The leadership style is often adjusted to fit the situation at the time. Situations frequently change requiring an adjustment to the leadership approach. The mark of a good leader is being able to choose the right leadership style at the right time for that situation. However, you cannot make a giant sequoia tree from a turnip seed. Each of us has unique qualities and characteristics that affect how we interact with people. Those personality traits will affect the approach a person will ultimately take to lead an organization. A fundamental question that all of us have to answer is what leadership style will work best for me?

There is no magic bullet as to the “right” leadership style that will fit all situations. The literature reports a relatively wide range of leadership styles with many different names.¹² Murray Johannsen lists 20 different leadership styles¹³ with an emphasis on the Transformational Leadership Style that embraces aspects of various different leadership styles. The Wall Street Journal Guide to Management¹⁴ identifies and discusses the following leadership styles making reference to Daniel Goleman's (2013) book titled *Primal Leadership*: 1.) visionary; 2.) coaching, 3.) affiliative; 4.) democratic; 5.) pacesetter, 6.) commanding. All aspiring leaders will want to read more about the various leadership styles. Some authors state that you must develop as many different leadership styles as possible to handle the various situations you will be faced with in your journey through life. I concur with that assessment.

Examples of six leadership styles for providing direction, implementing plans, and motivating people as listed in Wikipedia¹⁵ are further discussed below in relation to actual situations I have experienced as a leader:

1. Authoritarian — Strict, close control by the boss;
2. Paternalistic — Complete concern for followers and workers with complete trust;
3. Democratic — Shared decision-making with guidance by a specific leader;
4. Laissez-faire — The worker is fully empowered in the decision making process (i.e., boss is hands off);
5. Transactional — Strict adherence to established routines and procedures (i.e., by the book) with worker rewards;

12 Community Tool Box. Styles of Leadership (<http://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/leadership-styles/main>)

13 Types of Leadership (<https://www.legacee.com/types-of-leadership-styles/#sthash.IBQuPZiY.dpbs>) and Justmejojo's Weblog (<http://justmejojo.wordpress.com/2011/08/13/types-of-leadership-styles>)

14 Leadership Styles from The Wall Street Journal Guide to Management. (<http://guides.wsj.com/management/>)

15 Leadership Style. Wikipedia. (<http://en.wikipedia.org/wiki/Leadershipstyle>)

6. Transformational—A variety of leadership styles are used by charismatic leader to change/transform, challenge, and inspire others;

A few examples in my career where these different leadership styles were employed are discussed in the following sections.

Leadership as a Forest Scientist

As a forest scientist you must always be on the hunt for good research ideas, especially those ideas that are fundamentally important to better forest and land management decisions. Proposals must be written with a clear purpose and need for the proposed research. Once grants are obtained, then the project work must be delegated to co-workers (i.e., other scientists, graduate students, administrative support personnel, technicians) with established deadlines. Experiments and trials must be conducted, data collected and analyzed, papers developed, published, and presented at professional/scientific meetings. In this context the Project Leaders (i.e., the lead scientist/professor) uses a variety of leadership styles which in my case included authoritarian, paternalistic, and democratic approaches. Concerns about long-term management of coast redwood stands (Standiford et. al. 2012, Piirto et. al. 2012; Piirto et. al. 1997b, 1997c), pitch canker infected native stands of Monterey pine (Stephens et. al. 2004; Piirto and Valkonen 2005; Ferchaw et. al. 2013), and central coast oak woodlands (Rice et. al 2004) required scientific leadership on the part of many people insuring that publishable peer reviewed papers were produced in a timely manner per the expectations of the funding organizations. Science must be part of the information used by leaders in arriving at informed, justifiable, and defensible decisions.

Likewise science has been and is very important to the management decisions made for Sierra Nevada giant sequoia groves and their associated ecosystems (Figures 4 and 5). This underpinning of science to management was clearly evident in the management planning for the Giant Sequoia National Monument (GSNM) created by Presidential Proclamation signed by President Clinton on April 15, 2000. A GSNM Science Advisory Board was established as a result of that proclamation to help USDA Forest Service leaders develop a Management Plan (USDA Forest Service 2012) and associated Environmental Impact Statement (EIS). I was asked to serve on that Science Advisory Board (Clark et. al. 2003) and to assist both the Sierra National Forest and the Sequoia National Forest to develop an ecological foundation for management of National Forest giant sequoia groves. That work to implement ecosystem management principles

in giant sequoia groves led to several peer reviewed publications (Piiro and Rogers 2002, 1999a, 1999b; Piiro et. al. 1997a; Piiro 1994). Leadership occurs in many different ways by scientists, concerned citizens, and agency leaders as these examples clearly demonstrate.



Figure 4. USDA Forest Service Giant Sequoia National Monument. (Photo cropped from "Sequoia Entrance" by Flickr user Sequoia Hughes used under Creative Commons Attribution 2.0 license.)



Figure 5. Awesome Giant Sequoia Trees in Mountain Home Demonstration State Forest (Photo: D. Piiro)

Leadership as a Teacher and Professor

Professors are also involved in teaching and mentoring students (Figure 6). A professor wanting to make a difference in terms of teaching must be “passionate” about their subject area to such an extent that it shows in the classroom. Students learn when they listen, work, and learn by doing with enthusiastic and interesting faculty members. Nothing is more boring than a professor reading their lecture notes prepared many years ago. The professor must be awe inspiring and current to help students expand their knowledge of the subject area. So in this context, the leadership style being followed is perhaps best described as transformational yet at times the professor must be paternalistic and authoritarian to insure that the course, program and university expectations (i.e., learning outcomes and student performance) as listed in the course syllabus and university catalog are being met.



Figure 6. Cal Poly Students with Dr. Antti Pasila (SeAMK Dean) and Dr. Douglas D. Piirto (Professor at Cal Poly) at Seinäjoki University of Applied Sciences in Ilmajoki, Finland. (Photo: M. Piirto)

Leadership as an Academic Department Head

Professors are often, depending on their academic achievements, asked to lead the academic department they are in as either a Department Head or Chair as was the case for me. I served as the Department Head for the National Resources Management and Environmental Sciences (NRES) Department at Cal Poly for 14 years. A lot of work and many accomplishments occurred during that timeframe, more than I can comment on here. Fourteen years is a long time to serve as a university department head. What did I do to survive and succeed for that period of time? Four management and leadership strategies stand out in my mind as being important to the success of an academic department.

First, the Department Head or Chair must clearly understand that working with faculty and staff in a university setting (i.e., the Academy) is not the same as working with a group of workers on the factory floor. Professors are self-starters and seek a lot of independence and autonomy for their assigned role in the university. University faculty and staff want to be consulted (shared governance) on all major administrative decisions affecting the department, college and university but they would rather leave all the nitty-gritty details up to the Department Head and other administrators.

Second, academic programs must always be evaluated in terms of their relevance and currency. The Department Head or Chair must periodically be involved in strategic planning and program/accreditation reviews (e.g., Piirto 2014; Shelton et. al. 2006) to insure that currency is maintained and enhanced. Follow-up development of an Action Plan that implements the accepted recommendations of those reviews is essential to timely enhancement of department programs.

Third, an outside advisory council can help keep the Department Head, other administrators, faculty, and staff in tune with changes in the professions the department serves (refer to Figure 7). The outside advisory council can be tasked to provide information to the academic Department Head, faculty and staff on emerging trends, career/job opportunities, sources of research funding/donations, curriculum concerns, and so much more which in turn can lead to better programmatic decisions.



Figure 7. Photo of the NRES Advisory Council, A Network to Discuss Good Ideas. (Photo: D. Piirto)

Fourth, application of good meeting management (Frank 1989), effective communication (Carnegie 1962; Piirto 1989) and human relations (Carnegie 1936) principles learned from training and experience must be sincerely and enthusiastically applied to garner trust, respect, and most importantly teamwork.

Leadership as a Practicing Forester and Agency Official

As an agency officer with the United States Department of Agriculture (USDA) Forest Service I was responsible for timber management program on both the Kings River and later the Pineridge Ranger Districts of the Sierra National Forest. A large number of people were assigned to work with me on this forest management, timber sale preparation, sale administration, reforestation and timber stand improvement program. Goals, objectives and tasks were clearly identified for the people assigned to work with and for me. The employees knew what work needed to be done and I gave them plenty of latitude to get that work done within the context of known agency procedures and protocols. Yet there were many situations where the boss must be the boss to insure that specific agency policies regarding time, attendance, performance standards, safety and much more were being followed by all employees under their direction. Various leadership styles (e.g., authoritarian, democratic, paternalistic, and others) were used depending on the specific situation. Good discussion, feedback, and employee agreement to the work at hand is essential no matter what leadership style is used.

Leadership as an Advocate

As a USDA Forest Service employee and as a U.S. citizen, I was concerned about the proposed Dinkey Dam project and its environmental impacts on the Sierra National Forest. So, I stepped forward and spoke out. The proposed dam project would have diverted water from several streams via an underground tunnel beneath McKinley Grove (i.e., old-growth giant sequoias) forming a reservoir (i.e., man-made lake) in the Dinkey Creek Area of the Sierra National Forest. The Dinkey Creek area is a very popular recreation site with significant historical and archaeological sites. And, over 90% of California's rivers have already been altered in major ways for hydroelectric and dam projects.

To my chagrin, I was directed to plan out the removal of the timber for the Dinkey Creek Water Development Project. The proposed project infuriated me to such an extent that I asked the District Ranger to assign me to other projects. I also requested that I be allowed to submit letters of opposition representing only myself to the deciding agencies involved. I was granted permission to do so. Many people in addition to myself were opposed to this project. As a result, Dinkey Dam was not built and hopefully never will be given the major environmental impacts involved in its construction. Water is important to the people of California but so are our natural ecosystems, historical and archaeological sites. Yes many people were alarmed that I would speak out against the project. But many more people agreed with me. Did I exert leadership in all of this, you bet I did. It took courage, conviction, and good diplomacy to speak up. I was my own boss in this effort to make a difference.

Leadership as a Concerned Citizen

Finally as a last professional work example, consider the following question: When is it OK as a scientist or agency manager to speak out publicly on forestry, natural resources, agriculture, or environmental issues? Here leadership on the part of the scientist or manager cannot occur if people are not aware of the good research work and facts associated with a particular environmental issue.

Diplomacy and tact are essential to all our human interactions. However, nothing is gained when the facts are not all known by all. So in that context we must not be reluctant to speak out on matters that concern us (e.g., Piirto 2004, 2011). If in your heart of hearts, you feel an urgent need to speak out...then do so but be sure to do so in a strategic, tactful and diplomatic fashion.

Family Leadership

The work we each do helps to define who we are. We work to provide income, fulfillment, health, and retirement benefits for ourselves and our family. However, we must not allow our work to overshadow our family life. Let us all try to first remember our families and friends as we do our work to provide for their welfare. Family must come first.

Which Leadership Style Is Best?

Well that question can only be answered in relation to the situation and the people involved. Certainly I have employed many different leadership styles in the various roles I have had in my career.

Key Points:

- Many different leadership styles have been used.
 - The right leadership style depends on the situation and the people involved.
 - Leadership occurs in many different ways in our life.
 - Good leadership takes courage and conviction to get the job done correctly, on time, and well received.
 - Good leadership requires good human relations, communication, and people management skills.
 - Science must be part of the information used by leaders in arriving at informed, justifiable, and defensible decisions.
 - Remain committed to your family and keep them the center of your attention as you do your work.
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CASE STUDY: CALIFORNIA BOARD OF FORESTRY AND FIRE PROTECTION

Leadership and management require that we get involved as has been previously mentioned. The degree to which we do get involved obviously depends on our life circumstances at the time. In 2007 I was appointed by the Governor and California Legislature to become a Member of the California Board of Forestry and Fire Protection (BOF). What an amazing experience that turned out to be. I served in that capacity for four years (Figure 8 and Figure 9). In that time frame I learned so much about myself and about California governance. None of that would have happened had I not stepped forward to take this largely volunteer appointment. At first I was somewhat intimidated by how much I would need to know and do in this appointment to the BOF.



Figure 8. California Government—An Amazing Experience. (Photo: D. Piirto)



Figure 9. Photo in 2011 of Mr. Mike Chrisman, California Secretary of Resources, and Dr. Douglas Piirto, Member of the California Board of Forestry and Fire Protection. (Photo: CDF/BOF)

The California Board of Forestry and Fire Protection (BOF) came into existence in 1885. This BOF was originally created by Legislature in 1885 to:

- Collect/disseminate forestry and tree culture statistics;
- Make investigations;
- Enforce and carry out national and state forestry laws (i.e., early Board members had Peace Officer authority);
- Provide input to local, state and federal authorities;
- Act with a special view to water supply;
- Provide fire suppression and reforestation of fire damaged areas.

The laws, rules, regulations and policies have evolved over the years and as such, a Board Member must fully understand this historical context in relation to the current issues before the BOF (CDF 2014).

A particularly poignant case occurred as a result of the 1907 San Francisco earthquake and associated devastating fire that destroyed most of San Francisco. Our reputation as Americans is to pick up the pieces and rebuild for a better future, which we did in the case of rebuilding San Francisco. Much of the timber, lumber and building materials for this effort came from nearby counties (e.g., San Mateo, Santa Cruz). The massive timber harvesting effort to provide enough

lumber to rebuild San Francisco was no small task. Whole forested landscapes were cut (Figure 10). Fortunately coast redwood stands are fairly resilient and have come back to wonderful second-growth coast redwood forests (Figure 11). However, many people objected to the unregulated cutting of entire landscapes no matter how noble the reasons. So in that context, California citizens have been and are actively engaged in what happens to forested landscapes on state and private lands through effective oversight by the BOF. Today forest land owners and Registered Professional Foresters must go through a very detailed environmental and public review before permits will be authorized to harvest timber for commercial purposes. These laws have evolved over time as a result of new legislation, evolving policy interpretation, and court decisions.



Figure 10. Little Creek Watershed at Swanton Pacific Ranch in Santa Cruz County around 1920 (Photo: Cal Poly)



Figure 11. Little Creek Watershed Second Growth Coast Redwood 90 Years Later. Notice the 2008 selection timber harvesting that is currently occurring. A major change from what occurred in the early 1900s. (Photo: D. Piirto)

The BOF has evolved, as have the laws that created it. Even though the BOF was created in 1885, there were no state laws or regulations regarding forest management and commercial harvest on state and privately owned lands in California prior to 1934. We began to see some involvement of counties in the late 1930 and early 1940s to regulate forest management and timber harvest on state and private lands in California. The first California Forest Practice Act was passed in 1945. It was later decided in 1971 by the court in the Bayside Timber Case (i.e., Bayside Timber Company vs. San Mateo County) that there were major problems with this original 1945 Act, particularly with reference to proper enforcement of the act. As a result the California Legislature passed the 1972 Professional Foresters Law and the 1973 Z'Berg Nejedly Forest Practices Act.

The Z'Berg Nejedly Act is a system of regulation to sustain commercial forestland productivity while giving consideration to other values. The Act requires completion of a Timber Harvest Plan (THP) by a Registered Professional Forester as input to the Director of the Cal Fire to permit or disallow the proposed forest management activities. The act and the associated Forest Practice Rules¹⁶ serve as a standard for law enforcement that specifies:

- All timber sales must be inspected;
- A public review process must be followed as a means to convey information, gain public involvement, and assure protection of resources is occurring;
- All work must be compliant with the California Environmental Quality Act (CEQA), other California and Federal laws. The required THP document is considered functionally equivalent to Environmental Impact Report (EIR) required by CEQA;
- All harvested areas where regeneration cutting has occurred must meet stocking standards within a specified period of time after completion of timber harvest activities;
- Major environmental values must be protected.

The associated Forest Practice Rules developed by the California Board of Forestry and Fire Protection (BOF) to implement the Z'Berg Nejedly Forest Practices Act are developed for three Forest Districts: Northern, Southern, and Coastal.

The current BOF has nine members appointed by the Governor with subsequent approval by the California Legislature with three members representing forest industry, one member representing the range/livestock industry, and five members representing the general public. A Chair is appointed from these

¹⁶ California Public Resources Code and the California Code of Regulations Title 14. Refer to www.fire.ca.gov/resource and <http://www.barclaysccr.com/index.htm>

nine members to lead the BOF with assistance from an Executive Officer and associated staff employees. A significant challenge of BOF Board members is to be constantly aware of the California Legislative intent as contrasted to the discretion of the BOF when developing associated forest practice rules and regulations that are responding to contemporary issues. The BOF develops a yearly Strategic Plan with associated goals, objectives and tasks to guide and make known its expected annual work.

Many people serving as leaders, managers and followers have and are affecting this entire forest practices regulatory process with roles changing as situations change. Issues facing the BOF vary from year to year with attention being paid to what is considered an urgent public need. Such issues as salmonid protection in relation to Water Lake Protection Zone (WLPZ) requirements was a major issue of consideration for a long period of time with final adoption of a rule package by the BOF around 2010 (Figure 12). Contemporary issues requiring BOF leadership action focus on such topics as climate change, fire protection requirements, road rules, land use pressures, forest health (e.g., Sudden Oak Death, Pitch Canker), working forest landscapes, and so much more.



Figure 12. Coho Salmon in California Streams Requiring California Board of Forestry and Fire Protection (BOF) Leadership (Photo: "Fish2479" by Flickr user NOAA Photo Library used under Creative Commons Attributions 2.0 Licence.)

Key Points:

- It is important to understand the historical context when placed in a leadership role.
- Leadership requires good knowledge of the people, agencies, and organizations that affect development and interpretation of laws, policies, rules and regulations.
- Laws, rules, regulations, and associated policies change requiring that we must be forever vigilant, informed and current with our knowledge.
- Strategic planning documents must be regularly developed to identify goals, objectives, tasks, roles, responsibilities, and timelines to effectively manage and lead an organization.
- Leaders must respond to contemporary issues forthrightly and in a proactive manner.
- Good leadership involves many people working effectively together to make a difference (Figure 13).



Figure 13. Members of the California Board of Forestry and Fire Protection presenting the Francis Raymond Award to Dr. Bill Libby in 2009 (Photo: Board of Forestry and Fire Protection)

SUMMARY

We can and do make a difference as we live our lives. Our life experiences are filled with numerous actions taken on our parts that have positive and negative effects. Effective leadership and management helps each of us make the right decisions. The leader in you must face the challenge to proactively affect the future for the benefit of society, the organization you are associated with, yourself, and most importantly your family.

Becoming all that you can be requires leadership and management. It is important to recognize that our most important decisions in life are made with one or two other people. Leadership and management are even more important in those life situations than they are in our work lives.

This paper has attempted to describe the differences between leadership and management, their relation to one another, leadership styles, and some key points for your further consideration. Leadership and management are about service. In serving others, others see the leader and manager in us. When people come to trust and respect you, they will follow your lead. It takes heart, courage, path finding, delegation, enabling, and so much more to be an effective leader. Are you up to the challenge?

Review of Leadership and Management Key Points

Twenty-three key points were listed in this paper for consideration by aspiring leaders and managers. All are important in some form, fashion, or way to get the job done and as such, the reader is encouraged to review them from time to time. Seven of those 23 key points stand out, in my opinion, as being very important to our work as leaders and managers (bolded items shown below):

- 1. Leaders must rise above each situation, look down on it to get a good view of the situation, and then decide on the proper course of action to lead and manage yourself and others to the future.**
 - 2. Leaders are organized with clear identification and communication of vision, goals, and objectives.**
 3. Followers expect their leaders to have sufficient education, credentials, experience, and commitment to their profession, co-workers, and society.
 - 4. Leadership starts with inspired, motivated, enthusiastic, and courageous people.**
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5. Good leaders have good oral and written communication skills (refer to Carnegie 1936, 1962; Piirto 1989).
 6. Good leaders have developed good habits as described by Covey (1989) in his book titled "The Seven Habits of Highly Effective People."
 7. Good leaders like working with people. They are committed to all that they undertake.
 8. Good leaders get involved.
 9. **Good leaders must be trustworthy and honest.**
 10. Aspiring leaders must clearly understand the leader/manager job description to insure that they are properly prepared and ready for the position they are applying for.
 11. **Clear delegation of management vs. leadership responsibilities must occur to insure success of the organization.**
 12. Many different leadership styles have been used.
 13. The right leadership style depends on the situation and the people involved.
 14. Leadership occurs in many different ways in our life.
 15. Good leadership takes courage and conviction to get the job done correctly, on time, and well received.
 16. **Good leadership requires good human relations, communication, and people management skills (i.e., you get respect when you show respect).**
 17. Science must be part of the information used by leaders in arriving at informed, justifiable, and defensible decisions.
 18. It is important to understand the historical context when placed in a leadership role.
 19. **Leadership requires good knowledge of the people, agencies, and organizations that affect development and interpretation of laws, policies, rules and regulations.**
 20. Laws, rules, regulations, and associated policies change requiring that we must be forever vigilant, informed and current with our knowledge.
 21. Strategic planning documents must be regularly developed to identify goals, objectives, tasks, roles responsibilities, and timelines to effectively manage and lead an organization.
 22. Leaders must respond to contemporary issues forthrightly and in a proactive manner.
 23. Good leadership involves many people working effectively together to make a difference.
-

REFERENCES

- Annander, F. 2013. *We are leaders*. Chichester: Capstone.
- Arvola, T. F. 1978. *California forestry handbook*. Sacramento, CA: State of California. The Resources Agency. California Department of Forestry and Fire Protection.
- Bass, B. M. & Riggio, R. E. 2005. *Transformational Leadership*. 2. ed. Mahwah, N. J.: Lawrence Erlbaum Associates.
- Bennis, W. 2009. *On becoming a leader*. 4. ed. New York: Basic Books.
- Burns, J. McGregor. 1978. *Leadership*. New York: Harper.
- Burns, J. McGregor. 2003. *Transforming leadership*. New York: Atlantic Monthly Press.
- California Department of Forestry and Fire Protection (CDF). 2014. *California Forest Practice Rules*. Current edition copies are available from CDF, 1416 Ninth Street, Sacramento, CA 95814.
- California Forest Practice Rules. [Web pages]. Available at: <http://www.barclaysccr.com/index.htm>, <http://www.fire.ca.gov>
- Carnegie, D. 1936. *How to win friends and influence people*. New York: Simon and Schuster.
- Carnegie, D. & Carnegie, D. 1962. *The quick and easy way to effective speaking*. New York: Dale Carnegie and Associates.
- Change leadership. [Web page]. Available at: <http://www.kotterinternational.com/our-principles/change-leadership>
- Clarke, J. N., Graber, D. M., Nissen, K. M., Piirto, D. D., Stephenson, N. L., Tormey, D. R. & Waggoner, P. E. (the Scientific Advisory Board). 2003. *Advice for the Secretary of Agriculture about Management of the Giant Sequoia National Monument*. USDA Forest Service. Sequoia National Forest.
- Community tool box, Section 3 Styles of leadership. 2014. [Web page]. Available at: <http://ctb.ku.edu/en/table-of-contents/leadership/leadership-ideas/leadership-styles/main>
- Covey, S. R. 1989. *The 7 habits of highly effective people*. New York: Simon and Schuster.
- Ferchaw (Loe) V., Wise, E., Pinkerton, J., Yun, D., Lund, U., Mark, W., Valkonen, S. & Piirto, D. 2013. *Management strategies for Pitch Canker Infected Ano Nuevo Stands of Monterey Pine*. *Forest Ecology and Management*. 308, 101–115.
- Frank, M. O. 1989. *How to run a successful meeting in half the time*. New York: Simon and Schuster-Pocket Books.
-

- Emerson, Ralph Waldo. 2001–2014. Ralph Waldo Emerson quotes. [Web pages]. Available at: http://www.brainyquote.com/quotes/authors/r/ralph_waldo_emerson.html
- Gardner, J. W. 1993. *On leadership*. New York: Free Press.
- Goleman, D., Boyatzis, R. & McKee, A. 2013. *Primal leadership*. Cambridge, MA: Harvard Business Review Press.
- Grellet, Stephen. [Web pages]. Available at: <http://www.tumblr.com/search/Stephen%20Grellet>
- Johannsen, M. 2009. *A guide to transformational leadership*.
- Justmejojo's Weblog. [Web page]. Available at: <http://justmejojo.wordpress.com/2011/08/13/types-of-leadership-styles>
- Kotter, J. 1999. *On what leaders really do*. Boston: Harvard Business Press.
- Kotter, J. B. *What leaders really do*. [Web page]. Available at: <http://hbr.org/2001/12/what-leaders-really-do/ar/1>
- Kouzes, J. & Posner, B. 2007. *Leadership challenge*. 4. ed. San Francisco, CA: Jossey Bass.
- Leadership styles: Choosing the right approach for the situation. [Web page]. Available at: http://www.mindtools.com/pages/article/newLDR_84.htm
- Leadership is not the same as management. 2011–2014. [Web page]. Available at: <http://www.skillsyouneed.com/lead/leader-vs-manager.html>
- Leadership Style. [Wiki article]. Available at: http://en.wikipedia.org/wiki/Leadership_style
- Murray, A. 2010. *The Wall Street Journal essential guide to management*. New York: Harper.
- Piirto, D. D. & NRES Faculty. 2014. *FNR Re-Accreditation and FNR/ENVM Program Review Self Study Report*. Natural Resources Management and Environmental Sciences Department, California Polytechnic State University, 1 Grand Avenue, San Luis Obispo, CA 93407.
- Piirto, D. D., Sink, S. E., Ali, D., Auten, S., Hipkin, C. & Cody, R. 2012. *Using FORSEE and continuous forest inventory information to evaluate implementation of uneven-aged management in Santa Cruz Coast Redwood Forests*. The peer reviewed paper published in the USDA Forest Service General Technical Report PSW-GTR-238.
- Piirto, D. D. & Rogers, R. 2002. *Achieving an ecological foundation for management of giant sequoia groves*. *Environmental Management* 30(1), 110–128.
-

-
- Piirto, D. D. & Valkonen, S. 2005. Structure and development of Pitch Canker Infected Monterey Pine Stands at Ano Nuevo, California. *Forest ecology and management* 213, 160–174.
- Piirto, D. D. 2004. Forests need local support, healthy forests take effort, money. *California Forests* 8(1), 12–14.
- Piirto, D. D. 2011. Thinning keeps forests on course. *California Forests* 15 (1).
- Piirto, D. D. & Rogers, R. 1999a. An Ecological Foundation for Management of Giant Sequoia Groves. USDA Forest Service, Pacific Southwest Region, Sequoia National Forest R5-EM-TP-005.
- Piirto, D. D. & Rogers, R. 1999b. An Ecological Foundation for Management of National Forest Giant Sequoia Groves. In: *Transactions for the 1999 North American Wildlife and Natural Resources conference*. Wildlife Management Institute.
- Piirto, D. D., Rogers, R. R. & Chislock Bethke, M. 1997a. Communicating the role of science in the Management of Giant Sequoia Groves. In: *Proceedings for the National Silviculture Workshop, May 19–22, 1997*. USDA Forest Service, Northeast Forest Experiment Station, Warren, Pennsylvania. General Technical Report GTR-NE-238.
- Piirto, D. D., Thompson, R. & Piper, K. 1997b. Implementing Uneven-Aged Redwood Management at Cal Poly's School Forest. In: *Proceedings of the Conference on Coast Redwood Forest Ecology and Management, June 18–20, 1996*. p 78–82.
- Piirto, D. D., Smith, B., Huff, E. & Robinson, S. 1997c. Efficacy of Herbicide Application Methods Used to Control Tanoak (*Lithocarpus densiflorus*) in an Uneven-aged Coast Redwood Management Context. A paper presented at the March 1996 Oak Woodlands: Ecology, Management, and Urban Interface Issues Symposium. Gen. Tech. Rpt. PSW-GTR-160.
- Piirto, D. D. 1994. Giant Sequoia Insect, Disease and Ecosystem Interactions. In: *Proceedings for the Symposium on Giant Sequoias: Their Place in the Ecosystem and Society. June 23–25, 1992*. Visalia, California.
- Piirto, D. 1989. Tips for making effective presentations. *Journal of forestry* 87(10), 55.
- Rice, E., Piirto, D., Larsen, R., Tietje, B., Cooper, R. & Lund, U. 2008. Identifying and addressing contemporary issues in Central Coast Oak Woodlands. Paper presented at the 6th California Oak Symposium. Peer reviewed proceedings.
- Shelton, M. D., Ahern, J., Piirto, D. D. & England, A. 2006. Perceptions of agriculture M.S. graduates regarding program quality and learning outcomes attainment. *NACTA Journal*.
-

- Standiford, R. B., Weller, T. J., Piirto, D. D., Stuart, J. D. & Technical coordinators. 2012. Proceedings of coast redwood forests in a changing California: A symposium for scientists and managers. Gen. Tech. Rep. PSW-GTR-238. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture.
- Stephens S. L., Piirto, D. D. & Caramagno, D. 2004. Fire regimes and resultant forest structure in Native Ano Nuevo Monterey Pine Forest, California. *American Midland Naturalist* 152, 25–36.
- Tichy, N. & Devanna, M. 1986. *The transformational leader*. Hoboken, N. J.: John Wiley & Sons.
- Top 10 qualities that make a great leader. [Web page]. Available at: <http://www.forbes.com/sites/tanyaprive/2012/12/19/top-10-qualities-that-make-a-great-leader>
- Types of leadership styles. [Web page]. Available at: <https://www.legacee.com/types-of-leadership-styles/#sthash.IBQuPZiY.dpbs>
- Understanding the differences: Leadership vs. management. 2014. [Web page]. Available at: <https://www.go2hr.ca/articles/understanding-differences-leadership-vs-management>
- United States Department of Agriculture (USDA). Forest Service. Sequoia National Forest. 2012. Giant Sequoia National Monument Management Plan (Including Errata). R5-MB-274.
- Wall Street Journal How to guide: Management. 2014. [Web page]. Available at: <http://guides.wsj.com/management>
- The Wall Street Journal. 2009. *WSJ Complete Small Business Guidebook*. New York: Three Rivers Press.
- What do managers do. 2014. [Web page]. Available at: <http://guides.wsj.com/management/developing-a-leadership-style/what-do-managers-do>
- What is a leader. 2011-2014. [Web page]. Available at: <http://www.skillsyouneed.com/lead/leader.html>
- What Is the difference between leadership and management. 2014. [Web page]. Available at: <http://guides.wsj.com/management/developing-a-leadership-style/what-is-the-difference-between-management-and-leadership>
- Webster Merriam Dictionary. 2014. [Online publication]. Available at: <http://www.merriam-webster.com/dictionary/dictionary?show=0&t=1413891631>
- Yousafzai, Malala. [Wiki article]. Available at: http://en.wikipedia.org/wiki/Malala_Yousafzai
- Yuki, Gary. 2002. *Leadership in organizations*. Cambridge, MA: Harvard Business Press.
-

SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES PUBLICATIONS

A. RESEARCH REPORTS

1. Timo Toikko. Sosiaalityön amerikkalainen oppi: Yhdysvaltalaisen caseworkin kehitys ja sen yhteys suomalaiseen tapauskohtaiseen sosiaalityöhön. 2001.
 2. Jouni Björkman. Risk Assessment Methods in System Approach to Fire Safety. 2005.
 3. Minna Kivipelto. Sosiaalityön kriittinen arviointi: Sosiaalityön kriittisen arvioinnin perustelut, teoriat ja menetelmät. 2006.
 4. Jouni Niskanen. Community Governance. 2006. (verkkojulkaisu)
 5. Elina Varamäki, Matleena Saarakkala & Erno Tornikoski. Kasvuyrittäjyyden olemus ja pk-yritysten kasvustrategiat Etelä-Pohjanmaalla. 2007.
 6. Kari Jokiranta. Konkretisoituva uhka: Ilkka-lehden huumekirjoitukset vuosina 1970–2002. 2008.
 7. Kaija Loppela. Ryhmässä oppiminen – tehokasta ja hauskaa: Arviointitutkimus PBL-pedagogiikan käyttöönotosta fysioterapeuttikoulutuksessa Seinäjoen ammattikorkeakoulussa vuosina 2005–2008. 2009.
 8. Matti Ryhänen & Kimmo Nissinen (toim.). Kilpailukykyä maidontuotantoon: Toimintaympäristön tarkastelu ja ennakointi. 2011.
 9. Elina Varamäki, Juha Tall, Kirsti Sorama, Aapo Länsiluoto, Anmari Viljamaa, Erkki K. Laitinen, Marko Järvenpää & Erkki Petäjä. Liiketoiminnan kehittyminen omistajanvaihdoksen jälkeen: Case-tutkimus omistajanvaihdoksen muutostekijöistä. 2012
 10. Merja Finne, Kaija Nissinen, Sirpa Nygård, Anu Hopia, Hanna-Leena Hietaranta-Luoma, Harri Luomala, Hannu Karhu & Annu Peltoniemi. Eteläpohjalaiset elintavat ja terveystietäytyminen: TERVAS: Terveelliset valinnat ja räätälöidyt syömisen ja liikkumisen mallit 2009–2011. 2012.
 11. Elina Varamäki, Kirsti Sorama, Anmari Viljamaa, Tarja Heikkilä & Kari Salo. Eteläpohjalaisten sivutoimiyrittäjien kasvutavoitteet sekä kasvun mahdollisuudet. 2012.
-

12. Janne Jokelainen. Hirsiseinän tilkkemateriaalien ominaisuudet. 2012.
13. Elina Varamäki & Seliina Päällysaho (toim.) Tapio Varmola – suomalaisen ammattikorkeakoulun rakentaja ja kehittäjä. 2013.
14. Tuomas Hakonen. Bioenergiaterminaalin hankintaketjujen kanttavuus eri kuljetusetäisyyksillä ja -volyymeilla. 2013.
15. Minna Zechner (toim). Hyvinvointitieto: kokemuksellista, hallinnollista ja päätöksentekoa tukevaa? 2014.
16. Sanna Joensuu, Elina Varamäki, Anmari Viljamaa, Tarja Heikkilä & Marja Katajavirta. Yrittäjyysaikomukset, yrittäjyysaikomusten muutos ja näihin vaikuttavat tekijät koulutuksen aikana. 2014.
17. Anmari Viljamaa, Seliina Päällysaho & Risto Lauhanen (toim.). Opetuksen ja tutkimuksen näkökulmia: Seinäjoen ammattikorkeakoulu 2014. 2014.
18. Janne Jokelainen. Vanhan puuikkunan energiakunnostus. 2014

B. REPORTS

1. Seinäjoen ammattikorkeakoulusta soveltavan osaamisen korkeakoulu: Tutkimus- ja kehitystoiminnan ohjelma. 1998.
 2. Elina Varamäki, Ritva Lintilä, Taru Hautala & Eija Taipalus. Pk-yritysten ja ammattikorkeakoulun yhteinen tulevaisuus: Prosessin kuvaus, tuotokset ja toimintaehdotukset. 1998.
 3. Elina Varamäki, Tarja Heikkilä & Eija Taipalus. Ammattikorkeakoulusta työelämään: Seinäjoen ammattikorkeakoulusta 1996 – 1997 valmistuneiden sijoittuminen. 1999.
 4. Petri Kahila. Tietoteollisen koulutuksen tilanne- ja tarveselvitys Seinäjoen ammattikorkeakoulussa: Väliraportti. 1999.
 5. Elina Varamäki. Pk-yritysten tuleva elinkaari: Säilyykö Etelä-Pohjanmaa yrittäjämaakuntana? 1999.
 6. Seinäjoen ammattikorkeakoulun laatu järjestelmän auditointi 1998 – 1999: Itsearviointiraportti ja keskeiset tulokset. 2000.
 7. Heikki Ylihärstilä. Puurakentaminen rakennusinsinöörien koulutuksessa. 2000.
-

-
8. Juha Ruuska. Kulttuuri- ja sisältötuotannon koulutus selvitys. 2000.
 9. Seinäjoen ammattikorkeakoulusta soveltavan osaamisen korkeakoulu: Tutkimus- ja kehitystoiminnan ohjelma 2001. 2001.
 10. Minna Kivipelto (toim.). Sosionomin asiantuntijuus: Esimerkkejä kriminaalihuolto-, vankila- ja projektityöstä. 2001.
 11. Elina Varamäki, Tarja Heikkilä & Eija Taipalus. Ammattikorkeakoulusta työelämään: Seinäjoen ammattikorkeakoulusta 1998 – 2000 valmistuneiden sijoittuminen. 2002.
 12. Tapio Varmola, Helli Kitinoja & Asko Peltola (ed.). Quality and new challenges of higher education: International Conference 25.–26. September, 2002. Seinäjoki Finland. Proceedings. 2002.
 13. Susanna Tauriainen & Arja Ala-Kauppi. Kivennäisaineet kasvavien nautojen ruokinnassa. 2003.
 14. Päivi Laitinen & Sanna Välisaari. Staphylococcus aureus -bakteerien aiheuttaman utaretulehduksen ennaltaehkäisy ja hoito lypsykarjatiljoilla. 2003.
 15. Riikka Ahmaniemi & Marjut Setälä. Seinäjoen ammattikorkeakoulu: Alueellinen kehittäjä, toimija ja näkijä. 2003.
 16. Hannu Saari & Mika Oijennus. Toiminnanohjaus kehityskohteena pk-yrityksessä. 2004.
 17. Leena Niemi. Sosiaalisen tarkastelua. 2004.
 18. Marko Järvenpää (toim.) Muutoksen kärjessä: Kalevi Karjanlahti 60 vuotta. 2004.
 19. Suvi Torkki (toim.). Kohti käyttäjäkeskeistä muotoilua: Muotoilukoulutuksen painotuksia SeAMK:ssa. 2005.
 20. Timo Toikko (toim.). Sosiaalialan kehittämistyön lähtökohta. 2005.
 21. Elina Varamäki, Tarja Heikkilä & Eija Taipalus. Ammattikorkeakoulusta työelämään: Seinäjoen ammattikorkeakoulusta v. 2001 – 2003 valmistuneiden sijoittuminen opiskelun jälkeen. 2005.
-

22. Tuija Pitkääkoski, Sari Pajuniemi & Hanne Vuorenmaa (ed.). Food Choices and Healthy Eating: Focusing on Vegetables, Fruits and Berries: International Conference September 2nd – 3rd 2005. Kauhajoki, Finland. Proceedings. 2005.
 23. Katariina Perttula. Kokemuksellinen hyvinvointi Seinäjoen kolmella asuinalueella: Raportti pilottihankkeen tuloksista. 2005.
 24. Mervi Lehtola. Alueellinen hyvinvointitiedon malli: Asiantuntijat puhujina. Hankkeen loppuraportti. 2005.
 25. Timo Suutari, Kari Salo & Sami Kurki. Seinäjoen teknologia- ja innovaatiokeskus Frami vuorovaikutusta ja innovatiivisuutta edistävänä ympäristönä. 2005.
 26. Päivö Laine. Pk-yritysten verkkosivustot: Vuorovaikutteisuus ja kansainvälistyminen. 2006.
 27. Erno Tornikoski, Elina Varamäki, Marko Kohtamäki, Erkki Petäjä, Tarja Heikkilä & Kirsti Sorama. Asiantuntijapalveluyritysten yrittäjien näkemys kasvun mahdollisuuksista ja kasvun seurauksista Etelä- ja Keski-Pohjanmaalla: Pro Advisor -hankkeen esiselvitystutkimus. 2006.
 28. Elina Varamäki (toim.) Omistajanvaihdosnäkömät ja yritysten jatkuvuuden edistäminen Etelä-Pohjanmaalla. 2007.
 29. Thorsten Beck, Henning Bruun-Schmidt, Helli Kitinoja, Lars Sjöberg, Owe Svensson & Alfonsas Vainoras. eHealth as a facilitator of transnational cooperation on health: A report from the Interreg III B project "eHealth for Regions". 2007.
 30. Anmari Viljamaa & Elina Varamäki (toim.) Etelä-Pohjanmaan yrittäjyyskatsaus 2007. 2007.
 31. Elina Varamäki, Tarja Heikkilä, Eija Taipalus & Marja Lautamaja. Ammattikorkeakoulusta työelämään: Seinäjoen ammattikorkeakoulusta v. 2004 – 2005 valmistuneiden sijoittuminen opiskelujen jälkeen. 2007.
 32. Sulevi Riukulehto. Tietoa, tasoa, tekoja: Seinäjoen ammattikorkeakoulun ensimmäiset vuosikymmenet. 2007.
 33. Risto Lauhanen & Jussi Laurila. Bioenergian hankintalogistiikka: Tapaustutkimuksia Etelä-Pohjanmaalta. 2007. (verkkojulkaisu).
-

-
34. Jouni Niskanen (toim.). Virtuaalioppimisen ja -opettamisen Benchmarking Seinäjoen ammattikorkeakoulun, Seinäjoen yliopistokeskuksen sekä Kokkolan yliopistokeskuksen ja Keski-Pohjanmaan ammattikorkeakouun Averkon välillä keväällä 2007. Loppuraportti. 2007. (verkkojulkaisu).
 35. Heli Simon & Taina Vuorela. Ammatillisuus ammattikorkeakoulujen kielten- ja viestinnänopetuksessa: Oulun seudun ammattikorkeakoulun ja Seinäjoen ammattikorkeakoulun kielten- ja viestinnänopetuksen arviointi- ja kehittämishanke 2005 – 2006. 2008. (verkkojulkaisu).
 36. Margit Närvä, Matti Ryhänen, Esa Veikkola & Tarmo Vuorenmaa. Esiselvitys maidontuotannon kehittämiskohteista. Loppuraportti. 2008.
 37. Anu Aalto, Ritva Kuoppamäki & Leena Niemi. Sosiaali- ja terveystalouden yrittäjyyspedagogisia ratkaisuja: Seinäjoen ammattikorkeakoulun Sosiaali- ja terveystalouden yksikön kehittämishanke. 2008. (verkkojulkaisu)
 38. Anmari Viljamaa, Marko Rossinen, Elina Varamäki, Juha Alarinta, Pertti Kinnunen & Juha Tall. Etelä-Pohjanmaan yrittäjyyskatsaus 2008. 2008. (verkkojulkaisu).
 39. Risto Lauhanen. Metsä kasvaa myös Länsi-Suomessa: Taustaselvitys hakkuumahdollisuuksista, työmääristä ja resurssitarpeista. 2009. (verkkojulkaisu).
 40. Päivi Niiranen & Sirpa Tuomela-Jaskari. Haasteena ikäihmisten päihdeongelma?: Selvitys ikäihmisten päihdeongelman esiintyvyydestä pohjalaismaakunnissa. 2009. (verkkojulkaisu).
 41. Jouni Niskanen. Virtuaaliopetuksen ajokorttikonsepti: Portfoliotyyppinen henkilöstökoulutuskokonaisuus. 2009. (verkkojulkaisu)
 42. Minttu Kuronen-Ojala, Pirjo Knif, Anne Saarijärvi, Mervi Lehtola & Harri Jokiranta. Pohjalaismaakuntien hyvinvointibarometri 2009: Selvitys pohjalaismaakuntien hyvinvoinnin ja hyvinvointipalveluiden tilasta sekä niiden muutossuunnista. 2009. (verkkojulkaisu).
 43. Vesa Harmaakorpi, Päivi Myllykangas & Pentti Rauhala. Seinäjoen ammattikorkeakoulu: Tutkimus-, kehittämis- ja innovaatio toiminnan arviointiraportti. 2010.
 44. Elina Varamäki (toim.), Pertti Kinnunen, Marko Kohtamäki, Mervi Lehtola, Sami Rintala, Marko Rossinen, Juha Tall & Anmari Viljamaa. Etelä-Pohjanmaan yrittäjyyskatsaus 2010. 2010.
-

45. Elina Varamäki, Marja Lautamaja & Juha Tall. Etelä-Pohjanmaan omistajanvaihdosbarometri 2010. 2010.
 46. Tiina Sauvula-Seppälä, Essi Ulander & Tapani Tasanen (toim.). Kehittyvä metsäenergia: Tutkimusseminaari Seinäjoen Framissa 18.11.2009. 2010.
 47. Veli Autio, Jouni Björkman, Peter Grönberg, Markku Heinisuo & Heikki Ylihärstilä. Rakennusten palokuormien inventaariotutkimus. 2011.
 48. Erkki K. Laitinen, Elina Varamäki, Juha Tall, Tarja Heikkilä & Kirsti Sorama. Omistajanvaihdokset Etelä-Pohjanmaalla 2006–2010: Ostajayritysten ja ostokohteiden profiilit ja taloudellinen tilanne. 2011.
 49. Elina Varamäki, Tarja Heikkilä & Marja Lautamaja. Nuorten, aikuisten sekä ylemmän tutkinnon suorittaneiden sijoittuminen työelämään: Seurantatutkimus Seinäjoen ammattikorkeakoulusta v. 2006–2008 valmistuneille. 2011.
 50. Vesa Harmaakorpi, Päivi Myllykangas & Pertti Rauhala. Evaluation report for research, development and innovation activities. 2011.
 51. Ari Haasio & Kari Salo (toim.). AMK 2.0: Puheenvuoroja sosiaalisesta mediasta ammattikorkeakouluissa. 2011.
 52. Elina Varamäki, Tarja Heikkilä, Juha Tall & Erno Tornikoski. Eteläpohjalaiset yrittäjät liiketoimintojen ostajina, myyjinä ja kehittäjinä. 2011.
 53. Jussi Laurila & Risto Lauhanen. Pienen kokoluokan CHP-tekniologiasta lisää voimaa Etelä-Pohjanmaan metsäkeskusalueelle. 2011.
 54. Tarja Keski-Mattinen, Jouni Niskanen & Ari Sivula. Ammattikorkeakouluopintojen ohjaus etätyömenetelmillä. 2011.
 55. Tuomas Hakonen & Jussi Laurila. Metsähakkeen kosteuden vaikutus polton ja kaukokuljetuksen kannattavuuteen. 2011.
 56. Heikki Holma, Elina Varamäki, Marja Lautamaja, Hannu Tuuri & Terhi Anttila. Yhteistyösuhteet ja tulevaisuuden näkymät eteläpohjalaisissa puualan yrityksissä. 2011.
 57. Elina Varamäki, Kirsti Sorama, Kari Salo & Tarja Heikkilä. Sivutoimiyrittäjyyden rooli ammattikorkeakoulusta valmistuneiden keskuudessa. 2011.
-

-
58. Kimmo Nissinen (toim.). Maitilan prosessien kehittäminen: Lypsy-, ruokinta- ja lannankäsittely- sekä kuiritusprosessien toteuttaminen: Maitohygieenian turvaaminen maitotiloilla: Teknologisia ratkaisuja, rakiennuttaminen ja tuotannon ylösajo. 2012.
 59. Matti Ryhänen & Erkki Laitila (toim.). Yhteistyö ja resurssit maitotiloilla: Verkostomaisen yrittämisen lähtökohtia ja edellytyksiä. 2012.
 60. Jarkko Pakkanen, Kati Katajisto & Ulla El-Bash. Verkostoitunut älykkäiden koneiden kehitysympäristö: VÄLKKEY-projektin raportti. 2012.
 61. Elina Varamäki, Tarja Heikilä, Juha Tall, Aapo Länsiluoto & Anmari Viljamaa. Ostajien näkemykset omistajanvaihdoksen toteuttamisesta ja onnistumisesta. 2012.
 62. Minna Laitila, Leena Elenius, Hilikka Majasaari, Marjut Nummela & Annu Peltoniemi (toim.). Päihdetyön oppimista ja osaamista ammattikorkeakoulussa. 2012.
 63. Ari Haasio (toim.). Verkko haltuun!: Nätet i besittning!: Näkökulmia verkostoituvaan kirjastoon. 2012.
 64. Anmari Viljamaa, Sanna Joensuu, Beata Taijala, Seija Rätts, Tero Turunen, Kaija-Liisa Kivimäki & Päivi Borisov. Elävästä elämästä: Kumppaniyrityspedagogiikka oppimisympäristönä. 2012.
 65. Kirsti Sorama. Klusteriennakointimalli osaamistarpeiden ennakointiin: Ammatillisen korkea-asteen koulutuksen opetussisältöjen kehittäminen. 2012.
 66. Anna Saarela, Ari Sivula, Tiina Ahtola & Antti Pasila. Mobiilisovellus bioenergia-alan oppimisympäristöksi: Bioenergia-asiantuntijuutta kehittämässä Etelä-Pohjanmaalla. 2013
 67. Ismo Makkonen. Korjuri vs. koneketju energiapuunkorjuussa. 2013.
 68. Ari Sivula, Risto Lauhanen, Anna Saarela, Tiina Ahtola & Antti Pasila. Bioenergia-asiantuntijuutta kehittämässä Etelä-Pohjanmaalla. 2013.
 69. Juha Tall, Kirsti Sorama, Piia Tulisalo, Erkki Petäjä & Ari Virkamäki. Yrittäjyys 2.0. – menestyksen avaimia. 2013.
 70. Anu Aalto & Salla Kettunen. Hoivayrittäjyys ikääntyvien palveluissa – nyt ja tulevaisuudessa. 2013.
-

71. Varpu Hulsi, Tuomas Hakonen, Risto Lauhanen & Jussi Laurila. Metsänomistajien energiapuun myyntihalukkuus Etelä- ja Keski-Pohjanmaan metsäkeskusalueella. 2013.
 72. Anna Saarela. Nuoren metsän hoitokohteen ympäristöhoito ja työturvallisuus: Suomen metsäkeskuksen Etelä- ja Keski-Pohjanmaan alueyksikön alueella toimivien energiapuuyrittäjien haastattelu. 2014.
 74. Elina Varamäki, Tarja Heikkilä, Juha Tall, Anmari Viljamaa & Aapo Länsiluoto. Omistajanvaihdoksen toteutus ja onnistuminen ostajan ja jatkajan näkökulmasta. 2013.
 75. Minttu Kuronen-Ojala, Mervi Lehtola & Arto Rautajoki. Etelä-Pohjanmaan, Keski-Pohjanmaan ja Pohjanmaan hyvinvointibarometri 2012: ajankohtainen arvio pohjalaismaakuntien väestön hyvinvoinnin ja palvelujen tilasta sekä niiden muutossuunnista. 2014.
 76. Elina Varamäki, Juha Tall, Anmari Viljanmaa, Kirsti Sorama, Aapo Länsiluoto, Erkki Petäjä & Erkki K. Laitinen. Omistajanvaihdos osana liiketoiminnan kehittämistä ja kasvua – tulokset, johtopäätökset ja toimenpide-ehdotukset. 2013.
 77. Kirsti Sorama, Terhi Anttila, Salla Kettunen & Heikki Holma. Maatilojen puurakentamisen tulevaisuus : Elintarvikeklusterin ennakointi. 2013.
 78. Hannu Tuuri, Heikki Holma, Yrjö Ylkänen, Elina Varamäki & Martti Kangasniemi. Kuluttajien ostopäätöksiin vaikuttavat tekijät ja oheispalveluiden tarpeet huonekaluhankinnoissa: Eväitä huonekaluteollisuuden markkina-aseman parantamiseksi. 2013.
 79. Ismo Makkonen. Päästökauppa ja sen vaikutukset Etelä- ja Keski-Pohjanmaalle. 2014
 80. Tarja Heikkilä, Marja Katajavirta & Elina Varamäki. Nuorten ja aikuisten tutkinnon suorittaneiden sijoittuminen työelämään –seurantatutkimus Seinäjoen ammattikorkeakoulusta v 2009 – 2112 valmistuneille. 2014.
 81. Sari-Maarit Peltola, Seliina Päällysaho & Sirkku Uusimäki (toim.). Proceedings of the ERIAFF conference "Sustainable Food Systems: Multi-actor Co-operation to Foster New Competitiveness of Europe". 2014
 82. Sarita Ventelä, Heikki Koskimies & Juhani Kesti. Lannan vastaanottohalukkuus kasvinviljelytiloilla Etelä- ja Pohjois-Pohjanmaalla. 2014.
-

84. Janne Jokelainen. Log construction training in the Nordic and Baltic countries: PROLOG final report. 2014.
91. Elina Varamäki, Anmari Viljamaa, Juha Tall, Tarja Heikkilä, Salla Kettunen & Marko Matalamäki. Kesken jääneet yrityskaupat – myyjien ja ostajien näkökulma. 2014.

C. TEACHING MATERIALS

1. Ville-Pekka Mäkeläinen. Basics of business to business marketing. 1999.
2. Lea Knuuttila. Mihin työhajausta tarvitaan?: Oppimateriaalia sosiaalialan opiskelijoiden työnohjauskurssille. 2001.
3. Mirva Kuni, Petteri Männistö & Markus Välimaa. Leikkauspelot ja niiden hoitaminen. 2002.
4. Ilpo Kempas & Angela Bartens. Johdatus portugalin kielen ääntämiseen: Portugali ja Brasilia. 2011.
5. Ilpo Kempas. Ranskan kielen prepositio-opas: Tavallisimmat tapaukset, joissa adjektiivi tai verbi edellyttää tietyn preposition käyttöä tai esiintyy ilman prepositiota. 2011.
6. Risto Lauhanen, Jukka Ahokas, Jussi Esala, Tuomas Hakonen, Heikki Sippola, Juha Viirimäki, Esa Koskiniemi, Jussi Laurila & Ismo Makkonen. Metsätoimi-henkilön energialaskuoppi. 2014

D. THESIS

1. Hanna Halmesmäki & Merja Halmesmäki. Työvoiman osaamistarve-kartoitus Etelä-Pohjanmaan metalli- ja puualan yrityksissä. 1999.
 2. Tiina Kankaanpää, Maija Luoma-aho & Heli Sinisalo. Kymmenen metrin kävelytestin suoritusohjeet CD-rom levyllä: Aivoverenkiertohäiriöön sairastuneen kävelyn mittaaminen. 2000.
 3. Laura Elo. Arvojen rooli yritysmaailmassa. 2001.
 4. Nina Anttila. Päälle käyvää: Vaatemallisto ikääntyvälle naiselle. 2002.
 5. Jaana Jeminen. Matkalla muotoiluyrittäjyyteen. 2002.
-

6. Päivi Akkanen. Lypsääkö meillä tulevaisuudessa robotti? 2002.
 7. Johanna Kivioja. E-learningin alkutaival ja tulevaisuus Suomessa. 2002.
 8. Heli Kuntola & Hannele Raukola. Naisen kokemuksia minäkuvan muuttumisesta rinnanpoistoleikkauksen jälkeen. 2003.
 9. Jenni Pietarila. Meno-paluu -lauluillan tuottaminen: Produktion tuottajan käsikirja. 2003.
 10. Johanna Hautamäki. Asiantuntijapalvelun tuotteistaminen case: Avaimet markkinointiin, kehittyvän yrityksen asiakasohjelma -pilotti projekti. 2003.
 11. Sanna-Mari Petäjistö. Teollinen tuotemuotoiluprosessi: Sohvapöydän ja sen oheistuotteiden suunnittelu. 2004.
 12. Susanna Patrikainen. Nuorekkaita asukokonaisuuksia Mode LaRose Oy:lle: Vaatemallien suunnittelu teolliseen mallistoon. 2004.
 13. Tanja Rajala. Suonikohjuleikkaukseen tulevan potilaan ja hänen perheensä ohjaus päiväkirurgisessa yksikössä. 2004.
 14. Marjo Lapiolahti. Maksuvalmiuslaskelmien toteutuminen sukupolvenvaihdoilla. 2004.
 15. Marjo Taittonen. Tutkimusmatka syrjäytymisen maailmaan. 2004.
 16. Minna Hakala. Maidon koostumus ja laatutekijät. 2004.
 17. Anne Uusitalo. Tuomarniemen ympäristöohjelma. 2004.
 18. Maarit Hoffrén. Vaihtelua kasviksilla: Kasvisruokalistan kehittäminen opiskelijaravintola Risettiin. 2004.
 19. Sami Karppinen. Tuomarniemen hengessä: Arkeista antologiaksi. 2005.
 20. Elina Syrjänen & Anne-Mari Uschanoff. Messut – ideasta toimintaan: Messutoteutus osana yrityksen markkinointiviestintää. 2005.
 21. Ari Sivula. Metahakemiston ja LDAP-hakemiston asennus, konfigurointi ja ohjelmointi Seinäjoen koulutuskuntayhtymälle. 2006. (verkkojulkaisu).
 22. Johanna Väliniemi. Suorat kaaret: kattaustekstiilien suunnittelu yhteistyössä tekstiiliteollisuuden kanssa. 2006. (verkkojulkaisu).
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SEINÄJOKI UNIVERSITY OF APPLIED SCIENCES

Seinäjoki Academic Library
Kalevankatu 35, FI-60100 Seinäjoki
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tel. +358 20 124 5040 fax +358 20 124 5041
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ISBN 978-952-5863-96-3
ISSN 1456-1751

ISBN 978-952-5863-93-2 (PDF)
ISSN 1797-5581 (PDF)